



PUBLIC NOTICE

FILE NUMBER: **20965S - ADOBE CREEK WATERSHED PLANNING STUDY**
SANTA CLARA VALLEY WATER DISTRICT

Regulatory Branch
333 Market Street
San Francisco, CA 94105-2197

DATE : **May 12, 1998**
RESPONSE REQUIRED BY: **June 9, 1998**

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1. INTRODUCTION: The Santa Clara Valley Water District (SCVWD), 5750 Almaden Expressway, San Jose, CA 95118-3686 [contact Ms. Vickie Germany, Environmental Planner, (408) 265-2607 ext. 2692] has applied for a Department of the Army permit to excavate and discharge fill material into waters of the United States to carry out channel improvements at 22 locations along Adobe Creek in Santa Clara County, California (Figure V-1). This application is being processed pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344).

Flood damages occurred along Adobe Creek in 1952, 1955, 1983, 1986, 1995, and 1998. The applicant states that the purpose of the proposed work is to reduce the threat of flooding and creek bank erosion along Adobe Creek in the project reach, and to provide flood protection for the 100-year event.

The Adobe Creek watershed is 10 square miles, and the creek flows for 14.7 miles within the city limits of Palo Alto, Mountain View, and Los Altos, and in the town of Los Altos Hills. No reservoirs have been built on Adobe Creek and its only major tributary is Purissima Creek. According to SCVWD, the major problems in the Adobe Creek watershed are the threat of water quality degradation (primarily due to erosion), the magnitude of potential flood damage to properties along the creek, and the intensive channel maintenance requirements.

This project is the subject of a Draft Environmental Impact Report [DEIR] and an Engineer's Report, bound together and dated August 1996, which is available for review, by appointment, at the Santa Clara Valley Water District offices at 5750 Almaden Expressway, San Jose [Contact: Scott Wilson, (408) 265-2607 ext. 2621], and our offices at 333 Market Street in San Francisco. [The comment period for the DEIR closed on January 3, 1997].

2. PROJECT DESCRIPTION: As shown on the attached drawings, the applicant plans to increase the capacity of Adobe Creek by implementing 37 actions at various locations along sixteen sections (reaches) covering about 7 1/2 miles (Figures V-2 & V-3). The proposed project would include channel modifications at two locations, three culvert replacements, one culvert addition, erosion repairs at 17 sites, two new and three upgraded maintenance ramps, the installation of 8 vortex rock weirs, modification of an existing bypass entrance structure, and the implementation of a new maintenance plan.

The banks within each erosion repair site generally support little or no vegetation. Approximately 10,200 square feet of currently natural bank would be resurfaced with riprap or gabions at these sites. An additional 16,000 square feet of currently natural bank would be resurfaced at the channel modification and bridge/culvert replacement sites. Therefore, the total area that would be converted from natural bank to armored bank would be approximately 26,200 square feet (0.6 acre).

Project construction will include 11,494 cubic yards of cut and 10,404 cubic yards of fill in an area totaling 1.12 acres within Corps of Engineers jurisdiction. However, as a result of channel widening, there will also be an overall increase of 0.23 acre of surface area in Corps jurisdiction after the project is completed.

Channel modification, culvert improvement, and erosion repair will result in the loss of a total of 1.4 acres of habitat in the riparian corridor adjacent to Corps jurisdiction, including 31,133 square feet of low quality habitat, 20,631 square feet of medium quality habitat, and 10,371 square feet of high quality habitat. Channel modifications and bridge/culvert replacement will result in covering 826 linear feet and 9,763 square feet of existing native bed with riprap or gabions at the Foothill College site and the culvert sites.

SCVWD also intends to establish a program in the project reaches to acquire continuous maintenance easements where possible along both banks of the creek, and to add or upgrade maintenance access ramps where appropriate. In addition, new comprehensive maintenance guidelines would be established for vegetation and erosion control. These measures would allow the District to more efficiently maintain the creek as a system.

The proposed activities, by reach, are identified and described below. Figures (attached) are cited for each project reach or group of reaches. The legend for the figures is presented on Sheet L-1, and the index to the location of each project reach is contained on Sheets I-1 to I-3. Note that the term "1% water surface" on the cross-section views refers to the predicted level of a 100-year flood.

Reach 1 (El Camino Real to Hetch Hetchy Pipeline) (Fig. S-1 to S-3B): The proposed measures consist of replacing the existing inadequate culvert (18' x 12' - arched) under El Camino Real, rebuilding the upstream transition to the culvert from the natural creek, and performing erosion repairs.

The new culvert will be 20 feet wide by 12 feet high and square in cross-section, with an incised low flow channel and fish baffles. The existing upstream concrete transition will be replaced with gabions on the channel sides and rock riprap on the invert. The gabions will extend upstream to stabilize the existing maintenance ramp on the left bank.

The proposed erosion control measures consist of the repair (by armoring) of four bank erosion sites and the installation of one vortex rock weir. Rock riprap will be placed, at a 2:1 slope, from the toe of the bank to a height of 4' to 12' (depending on location). The existing 12' high bank at Station 255+00 will be cut back approximately 6' to accommodate the rock, but no cut-backs will occur at the other bank repair locations at this site.

Reaches 2 - 4 (Hetch Hetchy Pipeline to Foothill Expressway) (Figures S-4 to S-9A): The proposed measures here consist of the armoring of nine erosion sites (as in Reach 1) and the installation of five vortex rock weirs. At eight of the erosion repair sites, riprap would be placed to heights varying from 8' to 14'. Because of the steepness of the ninth site, sacked concrete slope protection (SCSP) would be used instead of riprap. The rock weirs would be placed in the vicinity of some of the erosion repair sites to assist in stabilizing the channel bottom.

Reach 5 (Foothill Expressway to West Edith Avenue) (Figures S-10 to S-12A): The land use in this reach is residential, with several homes on the Los Altos side of the creek built extremely close to the creek, and there are a number of severe erosion problems. Because the creek channel slope is very steep here, wooden and concrete walls, SCSP, and gunnite have been used to protect against erosive velocities. The walls were originally constructed to limit the size of the creek to obtain the maximum use of adjacent property. Consequently, portions of the reach are well below 100-year flood capacity. In several places the wooden walls have rotted and collapsed, leaving near-vertical earthen

banks, and large trees perched within a few feet of the top of the bank.

Under the Foothill Expressway, there is also an existing 12' x 10' concrete box culvert, which is inadequate to carry a 100-year flood, and currently causes a backwater and flooding upstream.

The new box culvert at Foothill Expressway will be 12' by 12' in size and will be located next to the existing culvert. The bottom of the existing culvert will be modified to provide a low-flow channel with fish baffles. In addition, the upstream and downstream transition structures will be rebuilt to conform to the new culvert configuration.

A three-stage channel modification will be constructed for 900', extending downstream of West Edith Avenue. The "stages" (levels) will consist of a gabion-lined low-flow channel; a 10' wide, vegetated mid-bank bench 3' above the low flow channel; and a 48' to 64' wide floodway/bench a few feet above the mid-bank bench. A concrete slab will be placed under the West Edith Avenue bridge, and fish-passable drop structures will be built immediately downstream of West Edith Avenue and at the downstream end of the channel modifications. (The downstream drop structure will replace an existing, unstable, drop structure.)

Stepped gabions will line the bank opposite the newly-created benches. The last 200' of the channel modification will consist of a 20' wide gabion- and rock-lined channel.

Bank stabilization measures are proposed for one other location (Sta. 388 +70) in this reach. This will consist of placing a 12' high wall of SCSP for a distance of approximately 50.'

Reaches 6 - 8 (West Edith Avenue to O'Keefe Lane) (Figures S-13 to S-15A): Between West Edith Avenue and Burke Road a revised maintenance program is proposed instead of any physical alteration of the creek. The existing 15'

wide bridge at Burke Road will be replaced with a 24' wide bridge approximately on the same alignment as the existing bridge. The upstream and downstream transition structures would also be reconstructed.

Most of the erosion problems in this reach are caused by the steep creek grade downstream of the O'Keefe Lane box culvert. Many SCSP, gunnite, and rock placement bank stabilization measures have been attempted along the banks by private parties. Riprap would be placed along the bank to a height of 6' at two locations, totaling 50' in length.

Reach 9 (O'Keefe Lane to Interstate 280) (Figures S-16 & S-16B): The main problem in this reach is an 11' X 7' concrete box culvert that was constructed so that there is a drop from the downstream end of the culvert to the streambed below. This has artificially maintained a shallow upstream channel and is causing severe erosion downstream.

The new culvert will be 15' wide and 11' deep, with a low-flow channel and fish baffles. The existing upstream concrete transition structure will be replaced with a transition that includes a drop inlet to the bridge. Downstream of the bridge, the transition would be reconstructed to reduce the extensive erosion that currently occurs.

Reaches 10 and 11 (Interstate 280 to El Monte Road) (Fig. S-17 to S-18A): The channel between the Foothill College Entrance Road and El Monte Road is affected by the inadequately sized 8' double-pipe culvert beneath the entrance road, sediment deposits within the bypass exit structure which enters the main channel downstream of El Monte Rd., and flooding due to the inadequately sized channel.

The proposed channel modification in the downstream 1,100' of this reach consists of a 20' wide low-flow channel that has rock riprap on the channel bottom and gabions for 6' up the sides. Above the gabions, an 8' wide revegetated high-

flow bench will be created between Stations 392+00 and 398+00. For 380 feet of streambed between the bypass pipe and the main channel, the proposed modification consists of a 15' wide low-flow channel that has an earthen channel bottom and gabions for 6' up the sides. The high-flow benches and cut slope to top of bank would be identical to the downstream section.

Reaches 12 and 13 (El Monte Road to Rhus Ridge Road) (Fig. S-19 to S-21A): The average longitudinal channel slope between El Monte Rd. and Tepa Way is very steep. The problem is exacerbated by severe erosion from overbank drainage off Moody Road, and by homeowner-constructed footbridges which encroach into the creek flow area. The 8' diameter creek bypass pipe inlet is located approximately 400' upstream of Tepa Way.

Because of the restricted width of the affected area, the proposed erosion control measures are: the placement of geocell material to a height of 10' along both banks for 60'; and the installation of two vortex rock weirs.

The proposed bypass entrance improvement will consist of replacing the existing concrete entrance structure and debris rack.

Reaches 14 - 16 (Rhus Ridge Road to Upstream of Moody Road (End of Project)): Due to minimal erosion problems in these reaches, no construction is proposed here. However, the intent is to include these reaches in the new maintenance program.

Cofferdams : Cofferdams would be used as-needed during the proposed channel work.

3. MITIGATION PROPOSAL: The proposed compensation for project impacts consists of planting native trees at several un- and under-vegetated locations along the project reach. The planting palette for each mitigation site (Table 1) was chosen based on the composition of native species growing at and adjacent to the impact sites

under conditions similar to those predicted to occur at the mitigation site. Since the mitigation sites are situated in and amongst the impact sites, the selection of species based on observations of vegetation near the mitigation sites is also reflective of the vegetation to be removed at the impact sites.

Bird use tends to be higher where a dense overstory co-occurs with a dense understory, as opposed to areas where shrubs and trees are separated in horizontal space. Therefore, the recommended on-center spacings are relatively dense, which should result in complete coverage after thinning due to natural selection.

Native riparian vegetation will be planted at five mitigation sites within the project area as follows: Foothill Expressway (0.5 acre), West Edith Avenue channel modification (0.3 acre), West Edith Avenue Park (0.6 acre), Foothill College channel modification (0.6 acre), and Adobe Creek Estates (0.6 acre). The sites have a total combined area of approximately 2.6 acres. Of these, two sites currently have acreage within Corps jurisdiction: West Edith Avenue (0.23 acre) and the Foothill Channel Modification Site (0.35 acre). These areas will be planted, but no change in Corps jurisdictional acreage is planned.

The following are site-by-site descriptions of the areas in which tree and shrub plantings will occur:

Foothill Expressway Site (Fig. M1 to M2): This proposed mitigation area is a flat meadow, approximately 10 feet above the creekbed, between the west bank of the creek and Foothill Expressway on fenced land that is owned by SCVWD. A dirt access road (approx. 15' wide) crosses the site, and SCVWD plans to continue to maintain this road. Gravel is currently spread over the surface in the northeastern portion of the site; this gravel will be removed during the restoration process. Residential development is present on the east bank of the creek.

SCVWD describes this site as degraded, due to previous removal of woody vegetation and to disking for weed and fire control. Areas of California bay trees, a valley oak, and a number of coast live oaks surround the portion of the area proposed for restoration. Eucalyptus trees along Foothill Expressway would not be removed since they provide perches and nesting spaces for birds of prey.

Approximately 100' of bank will be graded to a 3:1 slope. Native trees and shrubs will be planted on the graded slope and in the "meadow" area, except for the 18' wide maintenance corridor (Table 1).

West Edith Avenue Channel Modification Site (Fig. M3 - M4): The upland portion of this site consists of landscaped/non-native vegetation, and of developed areas, including a swimming pool and tennis court. It is bordered by residential properties to the west, north, and east, and by open space to the south, consisting of landscaped/non-native vegetation, and zoned for residential development.

This site is currently privately owned. It would be included within the right-of-way SCVWD will be required to obtain to do channel stabilization work at this location.

The channel banks throughout much of the site are lined with a variety of artificial surfaces, including gunnite, concrete, and wooden walls. Consequently, riparian habitat is precluded from much of the channel bank. Eucalyptus are located beyond the current top-of-bank, and large redwood trees are located on the northeast bank, just outside of the project area.

SCVWD proposes to excavate a mid-level bench and a high-flow bench on the site. The mitigation plantings will be located on the mid-bank bench and the 2:1 slope above it on the southwest side of the modified creek channel. The bench will be 6' to 12' above the channel bed and the entire revegetation area will be 20' wide and 650' long.

West Edith Avenue Park Site (Fig. M5 - M6): A mixture of native and non-native trees and shrubs are presently scattered throughout this site, with non-native trees predominating. A thick layer of eucalyptus mulch prevents the establishment of an herbaceous ground cover. The density of trees and shrubs is relatively low and large gaps occur in the canopy.

This site is owned primarily by the Town of Los Altos Hills, with small portions along the creek under private ownership. It is used by the community as a neighborhood park. Residential development surrounds the site. SCVWD states that it will obtain all necessary conservation easements, or other required legal permission, prior to use of the site for mitigation.

All non-native plants within the mitigation area will be removed and an existing trail will be removed by deep ripping. Light grading will be conducted to remove the layer of wood chips and piles of dirt on site. The site will be lightly graded to provide a gently sloping gradient toward the creek.

The area will be planted with native trees and shrubs, and human intrusion will be discouraged by installation of a post-and-beam fence, and installation of signs that inform visitors of the sensitive nature of the mitigation area.

Foothill College Channel Modification Site (Fig. M7 - M8): This channel site is located at the Foothill College campus. It is bordered on one side by a parking lot, and on the other by steep hillside slopes up to El Monte Road. The proposed mitigation area along the northwestern side of the creek is currently part of the asphalt parking lot.

The position of the channel here was altered during construction of the parking lot. It is relatively linear, and much of the channel area is lined with concrete, gunnite, and riprap. This portion of the creek exhibits perennial low flows from an upstream seep.

SCVWD will have to acquire a right-of-way in order to construct the channel modification and the mitigation area would be within that right-of-way.

Native woody riparian vegetation is in the process of recolonizing the constructed channel banks and occurs in thin strips on both banks. The riparian vegetation within these strips exhibits signs of disturbance such as a discontinuous tree canopy, a predominance of young trees, and patches of bare ground.

Planting at this site will be on the mid-bank benches and 2:1 slopes, on both banks, will be 10'-20' wide on each bank, and will extend along 1,250' of channel.

Adobe Creek Estates Site (Fig. M9 - M12): This site runs parallel to Moody Road, beginning approximately 300' east (downstream) of Adobe Creek Lodge Road and extending approximately 600' west (upstream) of Adobe Creek Lodge Road.

The site is privately owned. However, the Town of Los Altos Hills has conditioned the development to provide a maintenance easement to SCVWD. This easement will allow SCVWD to carry out riparian habitat restoration at the site.

The channel in this location was realigned and reconfigured during construction of the adjacent development. The new configuration consists of a linear 18' wide channel bottom with 2:1 side slopes. The channel bed and banks were created with angular, crushed concrete, and 18" of soil was spread over the concrete on the banks.

Non-native trees recently planted within the mitigation site, upstream of Adobe Creek Lodge Road, will be removed and relocated prior to planting of native species.

The bench immediately adjacent to the northern creek bank downstream of the same road has been compacted due to the storage of concrete, the passage of heavy trucks, and use as an equestrian trail. Before planting, this bench (approximately

230" long by 35' wide) should be ripped to a depth of approximately 24" and disked to relieve compaction.

Subterranean concrete will be removed from the two-foot diameter planting holes where trees will be planted on the channel bank. Subterranean concrete will not be removed from the lowermost 4' of the channel bank.

4. STATE APPROVALS: The applicant states that they have notified the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, to determine the need for State water quality certification. If the RWQCB determines that this project is consistent with the California Water Quality Control Plan; requirements adopted by the RWQCB; and Sections 301, 302, 303, 306, and 307 of the Clean Water Act; the State will issue a Certificate of Conformance with Water Quality Standards to the project proponent. Those parties concerned with any water quality problems that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, California 94612. The applicant will contact the California Department of Fish and Game (CDFG) to obtain a Streambed Alteration Agreement pursuant to Fish and Game Code 1601-03.

5. PRELIMINARY ENVIRONMENTAL ASSESSMENT: The Corps of Engineers has assessed the environmental impacts of the action proposed in accordance with the requirements of the National Environmental Policy Act of 1969 (Public Law 91-190) and pursuant to Council on Environmental Quality's Regulations, 40 CFR 1500-1508 and Corps of Engineers' Regulations, 33 CFR 230 and 325, Appendix B. In addition to the Preliminary Environmental Assessment, the Adobe Creek Watershed Planning Study, consisting of the Engineer's Report and Draft Environmental Impact Report (EIR), was submitted for review in August 1996. A public hearing on the draft EIR was held December 12, 1996 in Los Altos, California. Unless otherwise

stated, the Preliminary Environmental Assessment describes only the impacts (direct, indirect, and cumulative) resulting from activities within the jurisdiction of the Corps of Engineers. All supporting data used in the preparation of this Preliminary Environmental Assessment are on file in the South Section, Regulatory Branch, Corps of Engineers, 333 Market Street, San Francisco, California.

The Preliminary Environmental Assessment resulted in the following findings:

a. IMPACTS ON THE AQUATIC ECOSYSTEM.

(1) Physical/Chemical Characteristics and Anticipated Changes

Substrate - The channel modifications proposed by the project include replacing inadequate culverts, channel widening, and placement of channel bank stabilization, such as gabions, rock riprap, geocell, and sacked concrete slope protection.

The artificial channel bottoms are expected to quickly fill with sediment and support emergent vegetation, thus replacing lost habitat value. The channel bottom at West Edith Avenue and Foothill College is already predominantly artificial.

Narrow concrete and wooden walled existing channels with impassable drop structures at West Edith Avenue and Foothill College would be replaced by the proposed channel modifications.

Erosion and Sedimentation - Erosion occurs actively throughout the project area. Approximately 75% (47 out of 63) of the maintenance activities performed in the project reach of Adobe Creek since 1980 were bank stabilization/erosion repair projects. Undercut banks slough into the channel, introducing sediment and debris into the water. Although the project will expose bare soils and could result in increased erosion, turbidity, and sedimentation

during construction, these impacts would be temporary and would be reduced by implementing best management practices to minimize erosion (e.g. grading only during dry months, and revegetation).

Since the repair of erodible banks and installation of other creek and bank stabilization measures should reduce the quantity of sediment that erodes into the creek, the project is expected to have a major, long-term, beneficial effect on erosion and sedimentation.

Water Quality - The proposed modifications to Adobe Creek channel would expose bare soils and could result in increased erosion, turbidity, and sedimentation during project construction. The increased sedimentation potentially generated could degrade the quality of water in the creek and the Palo Alto Flood Basin by transporting other pollutants adhered to sediments, or adversely affecting biological resources.

These potential impacts would be reduced by the implementation of best management practices, including the following: 1) project construction during periods of low creek flows; 2) implementation of temporary erosion control measures during construction; and 3) stabilization and/or revegetation of disturbed areas of the channel after construction. In addition, the repair of erosive banks and installation of other creekbed and bank stabilization measures should reduce the quantity of sediment that erodes into the creek.

(2) Biological Characteristics and Anticipated Changes

Wetlands - Adobe Creek carries intermittent seasonal flows during the winter and spring rainy season, but, with the exception of the Foothill College site, is primarily dry during the summer and fall. Due to the incised nature of the channel and lack of substantial ponding within the channel, wetlands are absent from the majority of the project area.

Approximately 0.09 acre of wetland were identified within the project reach: at the Foothill College channel modification site, West Edith Avenue channel modification site, Foothill Expressway culvert site, Burke Road culvert site, and Tepa Way culvert site.

The wetlands that are present consist almost exclusively of monotypic stands of watercress (*Rorippa nasturtium-aquaticum*) growing in flowing water on artificial concrete and riprap substrates. Very small patches of emergent vegetation, consisting primarily of tall umbrella sedge (*Cyperus eragrostis*), rabbitfoot grass (*Polypogon monspeliensis*), and arroyo willow seedlings (*Salix lasiolepis*) are present at the Foothill College channel modification site.

Endangered Species - The project is within the range of the federally listed threatened California red-legged frog (*Rana aurora draytonii*) (CRLF). However, due to the lack of deep pools in the creek, its location within an urbanized area, and its summer dryness, it is unlikely that CRLF occurs within the project area. In addition, a study done for the SCVWD in 1997 (Santa Clara Valley Water District California Red-Legged Frog Distribution and Status - 1997, prepared by H.T. Harvey & Associates dated June 3, 1997) shows the entire project reach to be within an area in which the CRLF is considered to be extinct.

The Foothill College channel modification site does have stream flow during most summers. However, any frogs entering this site would not be expected to survive due to the lack of deep pools and the expected presence of urban predator species. Nonetheless, preconstruction surveys for red-legged frogs will be performed at the Foothill College site to ensure that no individuals are taken.

Potentially suitable habitat for steelhead rainbow trout (*Oncorhynchus mykiss*), federally listed as threatened, may exist on the site, but the presence of the species in the project area is considered unlikely because the fisheries habitat is marginal. In the summer and early fall, the majority of the

project area is dry. Some shallow (less than 2' deep) pools remain in the Foothill College project site through the summer and fall but are considered very marginal for steelhead. Furthermore, work in most of the project reaches will be conducted in the dry season when steelhead would not be present.

Habitat for Fish and other Aquatic Organisms - Although fish are generally absent from intermittent streams due to the periodic lack of water, threespine sticklebacks (*Gasterosteus aculeatus*), California roach (*Hesperoleucus symmetricus*), and Sacramento sucker (*Catostomus occidentalis*) have been observed in the project area. The project should result in a significant improvement in fisheries habitat by removing barriers to fish movement.

b. IMPACTS ON RESOURCES OUTSIDE THE AQUATIC ECOSYSTEM.

(1) Physical Characteristics and Anticipated Changes

Air Quality - The project will result in short-term air quality impacts from dust and equipment emissions during construction. Measures will be implemented to reduce the construction-related dust impacts to a minimal level, including: 1) suspension of earthmoving or other dust-producing activities during high winds, 2) watering of all exposed or disturbed soil surfaces at least twice daily, 3) watering or covering of soil stockpiles or other wind-blown materials, 4) sweeping of paved construction areas and adjacent streets of mud and debris, and 5) limiting the speed of all construction vehicles to 15 miles per hour while on site.

Noise Conditions - The project will result in short-term noise impacts from vehicles and equipment during construction, especially in any area that will require the use of a pile-driver to install foundation support. Limiting the hours of construction activities and using construction equipment in good mechanical condition with adequate mufflers will minimize these impacts.

(2) Biological Characteristics and Anticipated Changes

Riparian Habitat Not in Corps Jurisdiction -

The structural and species diversity of the disturbed riparian habitat adjacent to residential areas along Adobe Creek offers a combination of foraging opportunities and cover that is of value to wildlife. While Adobe Creek is degraded and modified, and much of the native tree canopy has been replaced by horticultural plantings, the creek still likely supports numerous species, including western fence lizard (*Sceloporus occidentalis*), sharp-tailed snake (*Contia tenuis*), warbling vireo (*Vireo gilvus*), Bullock's Oriole (*Icterus bullocki*), Bewick's wren (*Thryomanes beweckii*), wrentit (*Chamaea fasciata*), big brown bat (*Eptesicus fuscus*), deer mouse (*Peromyscus maniculatus*), and striped skunk (*Mephitis mephitis*). Areas of ponding provide breeding habitat for Pacific treefrogs (*Hyla regilla*) and western toads (*Bufo boreas*), as well as foraging habitat for the Pacific-slope flycatcher (*Empidonax difficilis*).

Overall, the project is expected to increase wildlife habitat due to the proposed plantings and expanded channel at the West Edith Road and Foothill College sites.

(3) Socioeconomic Characteristics and Anticipated Changes

Aesthetic Quality - The creek in the project area ranges from an undeveloped earthen channel to a gunnite or concrete-lined channel. The proposed project does not involve the development of structures that would block existing views, alter important scenic resources, or produce light or glare. The project would not result in any loss of open space or change the existing character or land uses in the area. Although the project would alter the visual character of the creek channel at some locations, the proposed modifications would not be visually intrusive, and in some cases, may even improve the visual quality of the area.

Public Health and Safety - The project would reduce or eliminate erosion of banks along public and private properties, and would reduce or eliminate flooding potential at critical locations along the creek. Therefore, it is expected that the project will have a long-term, major, beneficial impact on public health and safety in the vicinity of the creek.

Recreational Opportunities - The proposed mitigation plan involves the use of private and public lands at up to five locations; public access would be somewhat limited. The West Edith Avenue Park mitigation site work would require removing an existing earthen pathway and removing some non-native vegetation. Public access to the creek area of this park would be restricted. The proposed plan at Foothill College conforms to the recreation element of the 1989 Adobe Creek Restoration Plan.

Overall, the riparian plantings are expected to enhance the context of the local recreational experience.

Economics and Employment - The rerouting of traffic and temporary loss of street parking along El Camino Real could have impacts on nearby businesses. SCVWD states that it will provide a letter to business owners which outlines the construction schedule, and will work with affected residents, renters, and business owners when it is time to construct the culvert at El Camino Real, before and during the construction process.

(4) Historic/Cultural Characteristics and Anticipated Changes

There are four areas of potential cultural resources adjacent to, but not within, the project area. These areas will be monitored by a qualified archaeologist during project construction. If prehistoric or historic resources are encountered, all construction within a fifty meter radius of the find would be stopped, SCVWD notified, the State Historic Preservation Office notified, and an

archaeologist retained to examine the find and make appropriate recommendations.

c. SUMMARY OF INDIRECT IMPACTS. The primary beneficial indirect impacts from this project are expected to be reduced bank failure, reduced property loss, and reduced flooding along Adobe Creek.

An adverse indirect impact may be loss of business, particularly along El Camino Real, during project work.

d. SUMMARY OF CUMULATIVE IMPACTS. Adobe Creek below El Camino Real has already been modified to contain the 100-year stormflow. The completion of the proposed project would complete 100-year protection for the remainder of the creek in which flooding occurs on a regular basis.

6. EVALUATION OF ALTERNATIVES: Evaluation of the proposed projects impacts includes application of the guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404 (b) of the Clean Water Act, (33 U.S.C. 1344(b)). The applicant has submitted a Section 404(b)(1) alternatives analysis for review.

In addition to the "No Project" alternative, SCVWD looked at the alternative approaches of Upstream Reservoirs, a Nonstructural Plan, and Channel Modifications.

Upstream Reservoirs. The most likely locations for reservoirs which might offer the capacity to provide the desired flood protection were considered to be: land of The Hidden Villa Trust, the Foothill Community College site, the Alta Mesa Cemetery, and Terman Junior High School.

The creation of a reservoir at any of these sites would require the removal and/or relocation of important public and private facilities, buildings, and/or infrastructure, would be prohibitively

expensive, and would not result in 100-year flood capacity for the creek.

Nonstructural Plan. This alternative would involve raising structures presently in the floodplain, and/or constructing floodwalls.

The "nonstructural plan" was rejected because it would still result in street flooding an average of once every three years, relies on intense community participation for success, would be very expensive, and would still not remove the current floodplain from FEMA 100-year floodplain maps.

Channel Modifications. This is the proposed project. It would involve some structural modifications in the channel itself, and would result in a reduction in the extent of the 100-year floodplain.

Within this approach, a number of alternatives were reviewed for each project reach, including, as relevant, replacement of bridges, concrete channel lining, gabions, riprap, vortex rock weirs, the use of floodwalls, improved maintenance access, widening of earthen channels, culvert improvements, bypass channels/pipes, and combinations of these measures.

The current plan is based on evaluation of the alternatives in view of land availability, impacts to wetlands and riparian habitat, 100-year flood protection, access, social impacts, and cost.

7. PUBLIC INTEREST EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision

whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision will reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, recreation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, and, in general, the needs and welfare of the people.

8. PURPOSE AND USE OF PUBLIC COMMENTS: The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments will also be used to determine the overall public interest of the proposed activity.

9. SUBMISSION OF COMMENTS: Interested parties may submit, in writing, any comments concerning this activity. Comments should include the applicant's name, the number and the date of this notice, and should be forwarded so as to reach this office within the comment period specified on page one of this notice. Comments should be sent to Lieutenant Colonel Richard G. Thompson, District Engineer, Attention: Regulatory Branch. It is the Corps of Engineers policy to forward any such comments, which include objections, to the applicant for resolution or rebuttal.

Any person may also request, in writing, within the comment period of this public notice that a public hearing be held to consider this application. Requests for public hearings shall state with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant, whose address is indicated on the first page of this notice, or by contacting Molly Martindale of our office at telephone (415) 977 - 8448.

Table 1. Recommended Composition of Plant Community to be Installed at Riparian Mitigation Sites.

Mitigation Site	Planting Area	Planting Palette	Planting Position
Foothill Expressway	A (slope)	<u>Tree Overstory:</u> California bay* box elder red willow arroyo willow <u>Shrub Understory:</u> California blackberry** common snowberry California rose dogwood	throughout slope top half of slope bottom half of slope bottom half of slope throughout slope throughout slope throughout slope throughout slope
	B (bench)	<u>Tree Overstory:</u> coast live oak* valley oak* Mexican elderberry California buckeye <u>Shrub Understory:</u> coffeeberry ** coyote brush California blackberry**	throughout closer to channel throughout throughout throughout throughout closer to channel
West Edith Avenue Channel Modification	A (bench)	<u>Tree Overstory:</u> coast live oak * valley oak California bay box elder California buckeye <u>Shrub Understory:</u> California blackberry** coffeeberry common snowberry	throughout throughout throughout throughout throughout throughout throughout throughout
	B (slope)	<u>Tree Overstory:</u> Mexican elderberry <u>Shrub Understory:</u> coyote brush** coffeeberry	throughout on ~ 20 foot centers throughout throughout
	C (top-of-bank)	coast live oak* valley oak Mexican elderberry	trees installed in a single row ~ 6 feet from hinge point

Note: Within site planting area locations are labeled on typical cross-section figures for each site.

* Dominant tree species to be planted.

** Dominant shrub species to be planted.

Table 1. (continued)

Mitigation Site	Planting Area	Planting Palette	Planting Position
West Edith Park	A	<u>Tree Overstory:</u> California bay* red willow arroyo willow <u>Shrub Understory:</u> California blackberry** California rose	mid/upper bank lower bank lower bank throughout throughout
	B	<u>Tree Overstory:</u> coast live oak* valley oak* Mexican elderberry California buckeye <u>Shrub Understory:</u> coffeeberry** coyote brush California blackberry**	throughout throughout throughout throughout throughout throughout close to the channel
Foothill College Channel Modification	A (bench)	<u>Tree Overstory:</u> valley oak* coast live oak* California buckeye California bay <u>Shrub Understory:</u> California blackberry** coffeeberry California rose	throughout throughout throughout close to channel throughout throughout throughout
	B (2:1 Slope)	<u>Tree Overstory:</u> coast live oak* valley oak California buckeye Mexican elderberry <u>Shrub Understory:</u> coffeeberry* coyote brush	throughout bottom half of slope throughout throughout throughout throughout

Note: Within site planting area locations are labeled on typical cross-section figures for each site.

* Dominant tree species to be planted.

** Dominant shrub species to be planted.

Table 1. (continued)

Mitigation Site	Planting Area	Planting Palette	Planting Position
Adobe Creek Estates	A (Channel Banks)	<u>Tree Layer:</u> red willow arroyo willow California bay* box elder <u>Shrub Layer:</u> coyote brush**California blackberry dogwood coffeeberry	along toe of bank along toe of bank mid/upper bank upper bank mid/upper bank mid/upper bank mid/upper bank upper bank
	B (bench)	<u>Tree Overstory:</u> valley oak* coast live oak* California bay California buckeye Mexican elderberry <u>Shrub Understory:</u> coffeeberry** Coyote brush California blackberry** dogwood	throughout throughout < 15 feet from channel > 15 feet from channel > 15 feet from channel throughout throughout close to the channel close to the channel

Note: Within site planting area locations are labeled on typical cross-section figures for each site.

* Dominant tree species to be planted.

** Dominant shrub species to be planted.



PURPOSE: To provide flood protection and erosion repair.

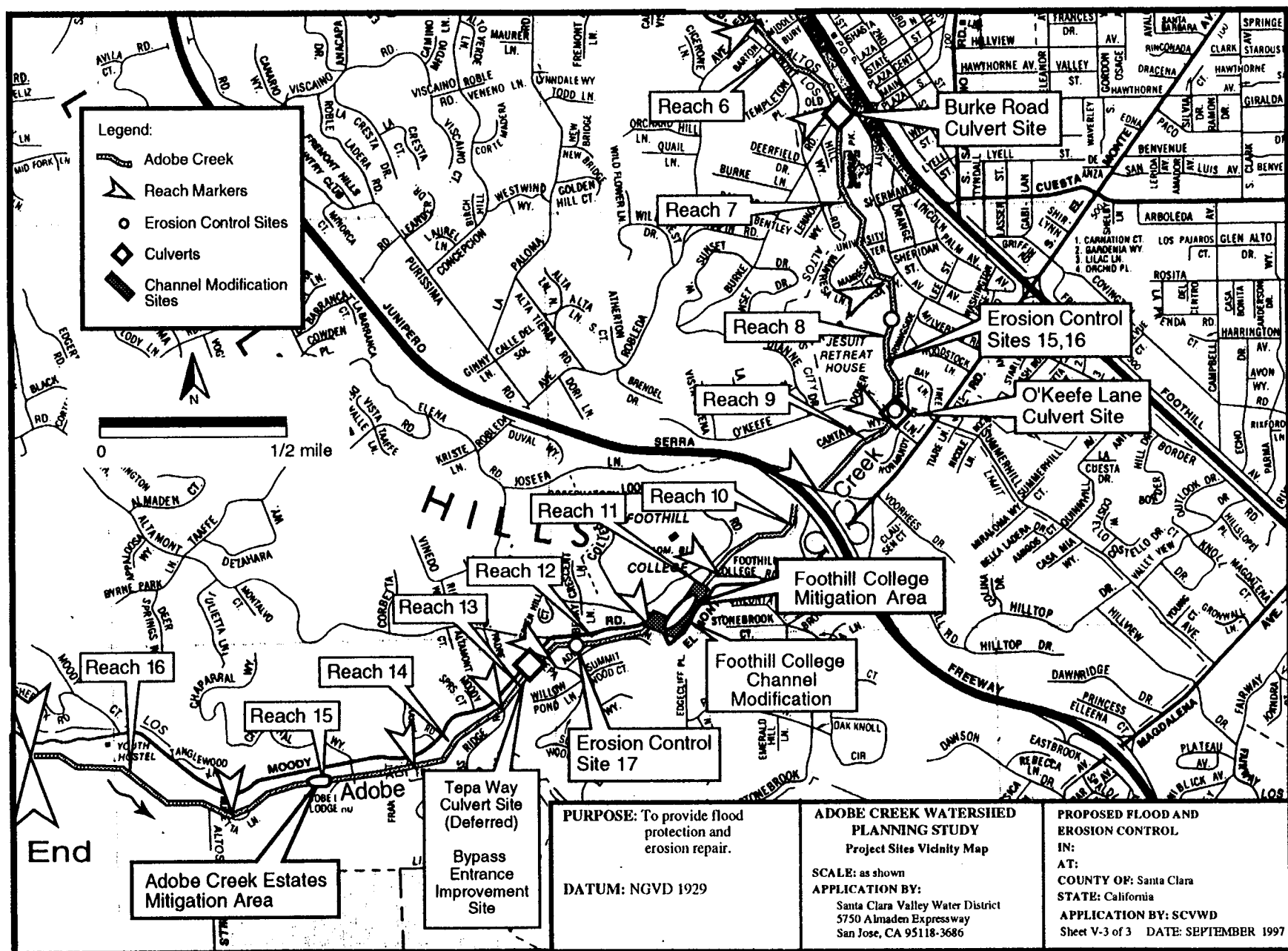
DATUM: NGVD 1929

**ADOBE CREEK WATERSHED
PLANNING STUDY
Project Sites Vicinity Map**

SCALE: as shown
APPLICATION BY:
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

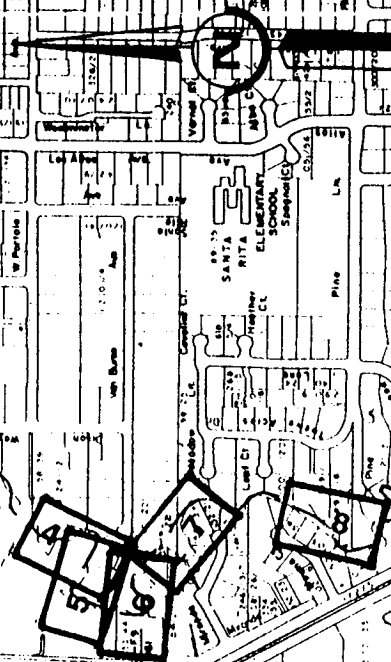
**PROPOSED FLOOD AND
EROSION CONTROL
IN:**

AT:
COUNTY OF: Santa Clara
STATE: California
APPLICATION BY: SCVWD
Sheet V-2 of 3 DATE: SEPTEMBER 1997



**ADOBE CREEK
INDEX SHEET
I-1
1 OF 3**

BEGIN PROJECT



DATE:
2/97

DESIGN
PS/SS

DRAWN
SB/TI

CHECKED:
8W

Santa Clara Valley Water District

**PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR**

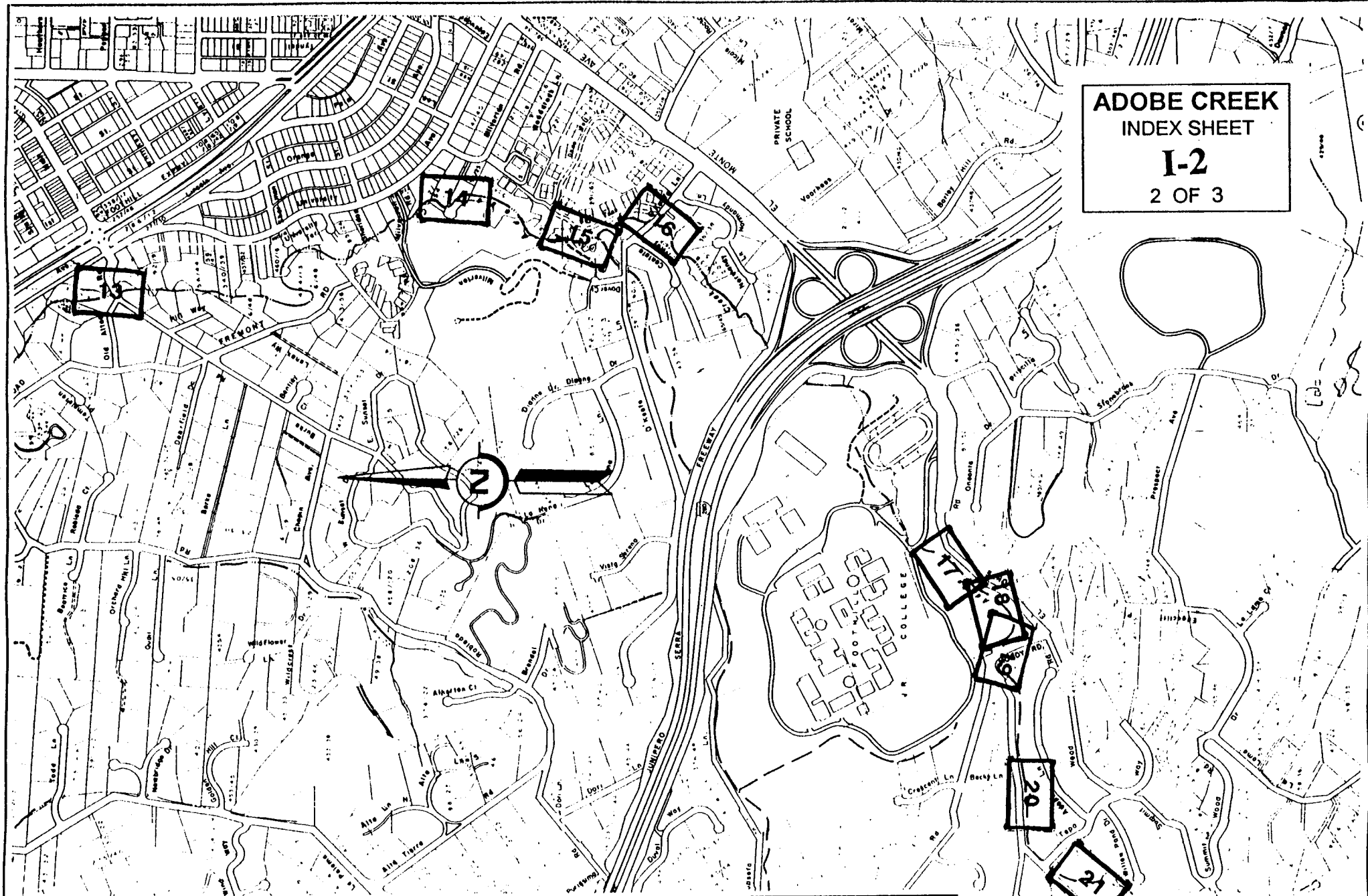
**IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK**


**SCALE
AS SHOWN**

SHEET

**I-1
1 of 3**

**ADOBE CREEK
INDEX SHEET
I-2
2 OF 3**

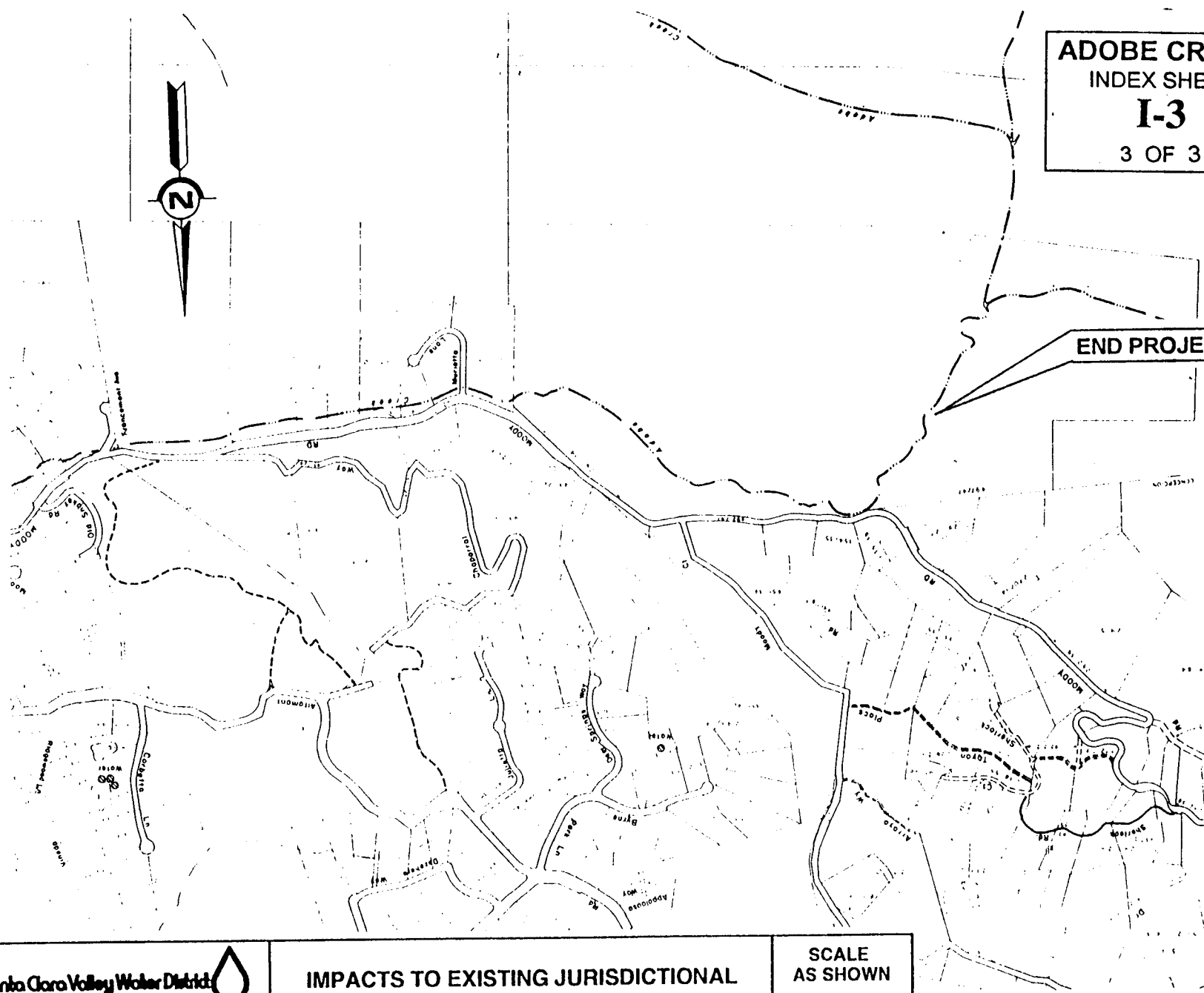



DATE: 2/97	San Joaquin Valley Water District 	IMPACTS TO EXISTING JURISDICTIONAL WETLANDS AND ORDINARY HIGH WATER FROM PROPOSED CHANNEL MODIFICATIONS IN ADOBE CREEK	SCALE AS SHOWN	
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ADOBE CREEK
INDEX SHEET
I-3
 3 OF 3



END PROJECT



DATE: 2/97	Santa Clara Valley Water District 	IMPACTS TO EXISTING JURISDICTIONAL WETLANDS AND ORDINARY HIGH WATER FROM PROPOSED CHANNEL MODIFICATIONS IN ADOBE CREEK	SCALE AS SHOWN
DESIGN PS/SS			SHEET I-3
DRAWN SB/TI	PROJECT PURPOSE: TO PROVIDE FLOOD PROTECTION AND EROSION REPAIR		3 of 3
CHECKED: SW			

ABBREVIATIONS

%	PERCENT
1%	100-YEAR FLOOD
10%	10-YEAR FLOOD
ABS	ACRYLOMTRILE BUTABINE STYRENE PIPE
AC	ASBESTOS CEMENT PIPE
ACB	ARTICULATED CONCRETE BLOCK
CB	CATCH BASIN
CFS	CUBIC FEET PER SECOND
CI	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
D/S	DOWNSTREAM
DBL	DOUBLE
DI	DROP INLET
EL	ELEVATION
ESMT	EASEMENT
EXIST	EXISTING
HORIZ	HORIZONTAL
JP	JOINT UTILITY POLE
JT	JOINT UTILITY TRENCH
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE PIPE
R/W	RIGHT OF WAY
RCB	REINFORCED CONCRETE BOX CULVERT
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
S	SLOPE
SCVWD	SANTA CLARA VALLEY WATER DISTRICT
SD	STORM DRAIN
SAN	SANITARY
SECT	SECTION
SHT	SHEET
STA	STATION
U/S	UPSTREAM
V	VERTICAL

LEGEND

CCEM	"C" GRADE CEMENT PIPE
CTV	CABLE TV CONDUIT
G	GAS PIPE
SD	STORM DRAIN
SS	SANITARY SEWER
T (UG)	UNDERGROUND TELEPHONE CABLE
VC	VITRIFIED CLAY PIPE
W	WATER PIPE
---	CREEK CENTERLINE
---	PROPOSED SCVWD R/W LINE
---	EXISTING SCVWD R/W LINE
---	EXISTING R/W LINE (NON SCVWD PROPERTY)
---	PROPOSED LINE (TYP)
---	EXISTING LINE (TYP)
---	1% FLOODPLAIN
---	WATER SURFACE PROFILE (1% FLOW)
---	WATER SURFACE PROFILE (10% FLOW AND OTHER FLOWS)

	EXISTING SLOPE OF BANK
	PROPOSED SLOPE OF BANK
	EXISTING ROCK LINING
	EXISTING CONCRETE LINING
	PROPOSED STEPPED GABION LINING
	PROPOSED EROSION REPAIR SITE
	PROPOSED ROCK LINING
	PROPOSED CONCRETE LINING
	PROPOSED EARTH LINING
	AREA WITHIN ORDINARY HIGH WATER (OHW)
	TEMPORARY WETLANDS AREA WITHIN OHW

DATE:
2/97
DESIGN:
PS/SS
DRAWN:
CHECKED:
SW

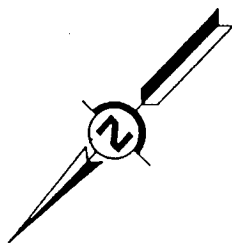
Santa Clara Valley Water District

PROJECT PURPOSE:
**TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR**

**IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK**

SCALE
AS SHOWN
SHEET
L-1 OF 1

248+00 BEGIN PROJECT



EL CAMINO RIVER

S.C.V.W.D. ESMT
IMPACT DUE TO
PROPOSED ROCK LINING

PROP. RAMP

S.C.V.W.D.

PROPOSED
TOP OF GABIONS

IMPACT DUE TO
PROPOSED CONCRETE
TRANSITION/GRADE
STABILIZER STRUCTURE

IMPACT DUE
TO PROPOSED
GABIONS

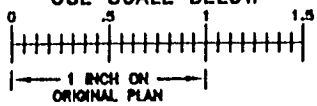
IMPACT DUE TO
PROPOSED
CONCRETE
TRANSITION

REMOVE EXISTING RCB

PROPOSED
20' x 12' RCB

Scale: 1" = 50'

REDUCED PLAN
USE SCALE BELOW



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

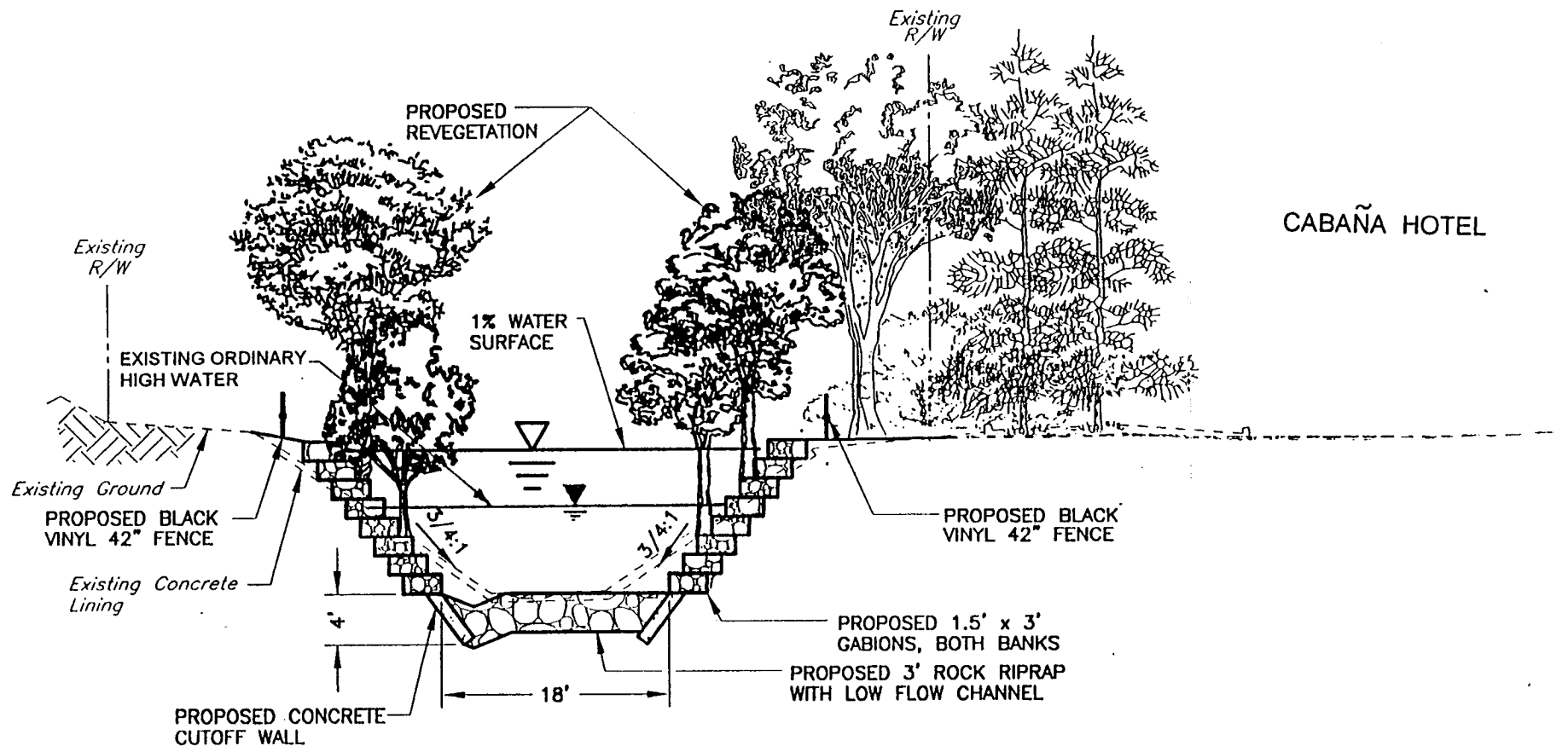
IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE
AS SHOWN

SHEET

S-1

OF 21



TYPICAL SECTION STA 250+90± TO STA 252+85±

NTS

RYAN

LAURELES

DI

FERNANDEZ

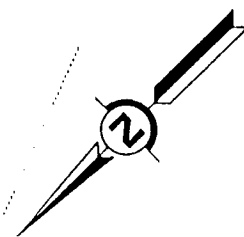
MEIGS

SCHOUWEILER

PONT

PROPOSED
EASEMENT

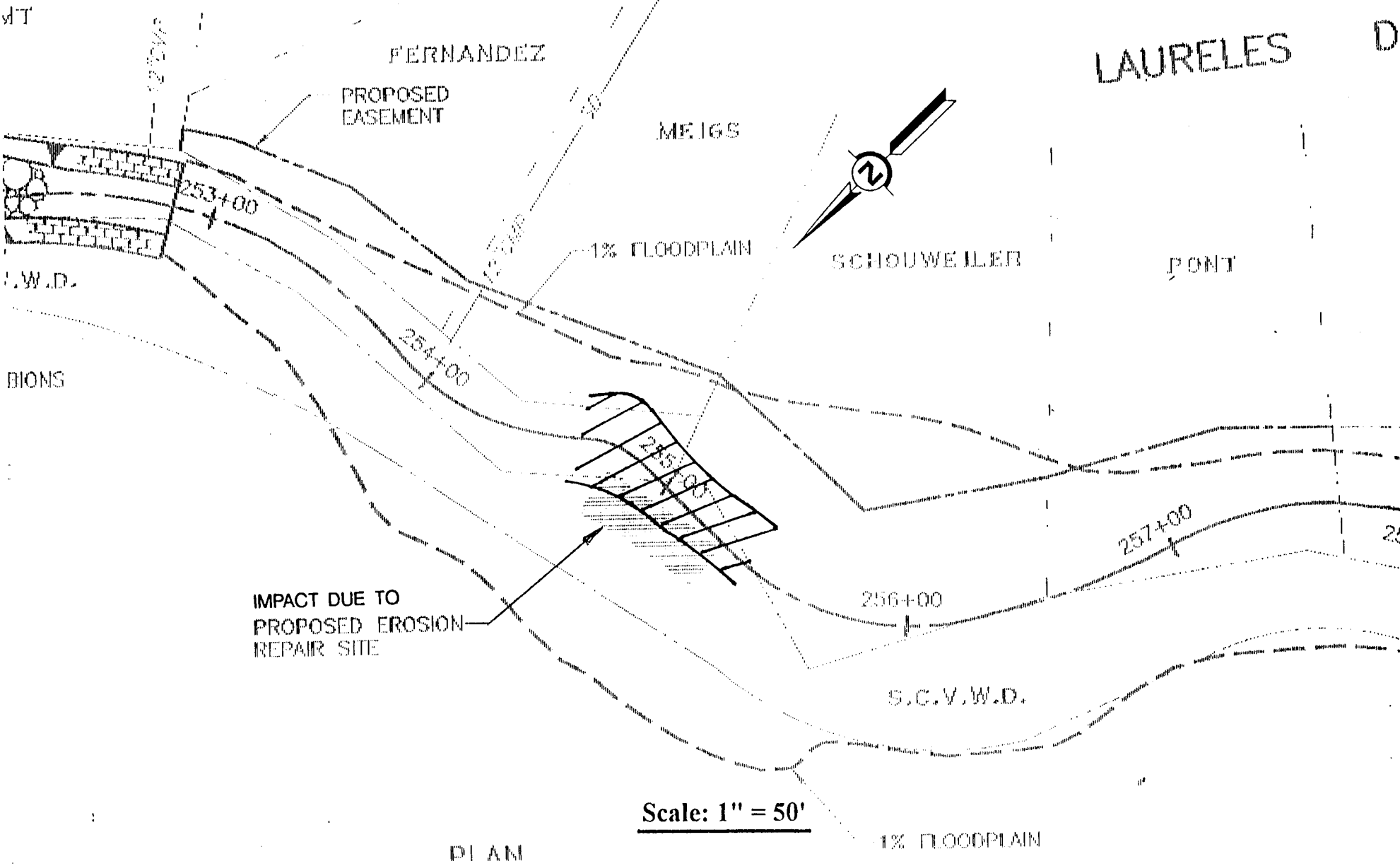
1% FLOODPLAIN



ST

W.D.

BIONS

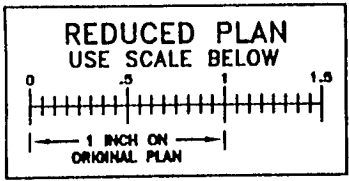


Scale: 1" = 50'

PLAN

S.C.V.W.D.

1% FLOODPLAIN



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

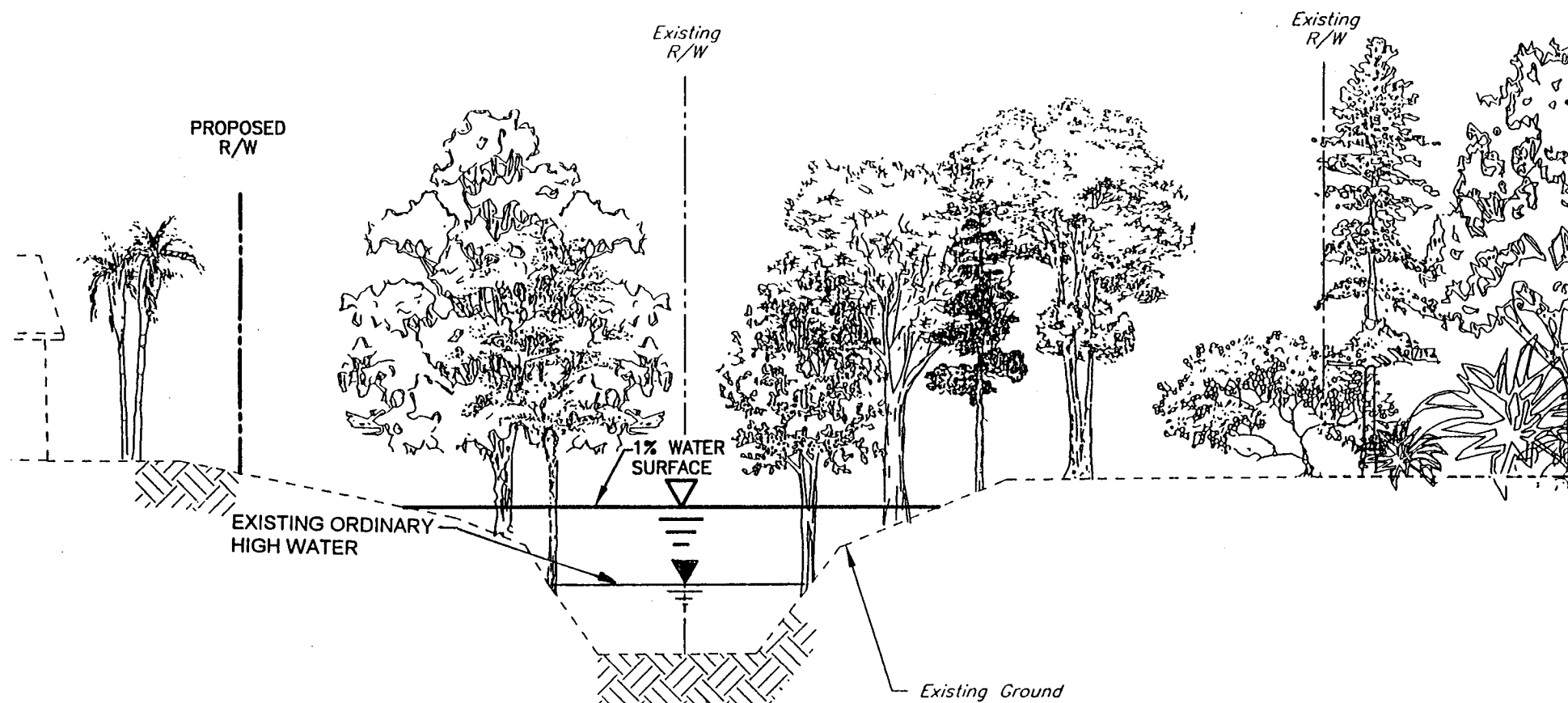
Santa Clara Valley Water District

PROJECT PURPOSE:
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FLOOD PROTECTION AND
EROSION REPAIR**

**IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK**

SCALE
AS SHOWN

SHEET
S-2
OF 21



TYPICAL SECTION STA 252+85± TO STA 263+60±
NTS

FOSSOURIER

FRERET

GEORGE

KUIPER

IMPACT DUE TO
PROPOSED VORTEX
ROCK WEIR

IMPACT DUE TO
PROPOSED EROSION
REPAIR SITE

PROPOSED
EASEMENT

STA. 263+60

MATCH LINE

SHEET A

IMPACT DUE TO
PROPOSED
EROSION
REPAIR SITE

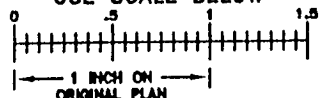
PROPOSED
EASEMENT

WRIGHT

GUPTILL

Scale: 1" = 50'

REDUCED PLAN
USE SCALE BELOW



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

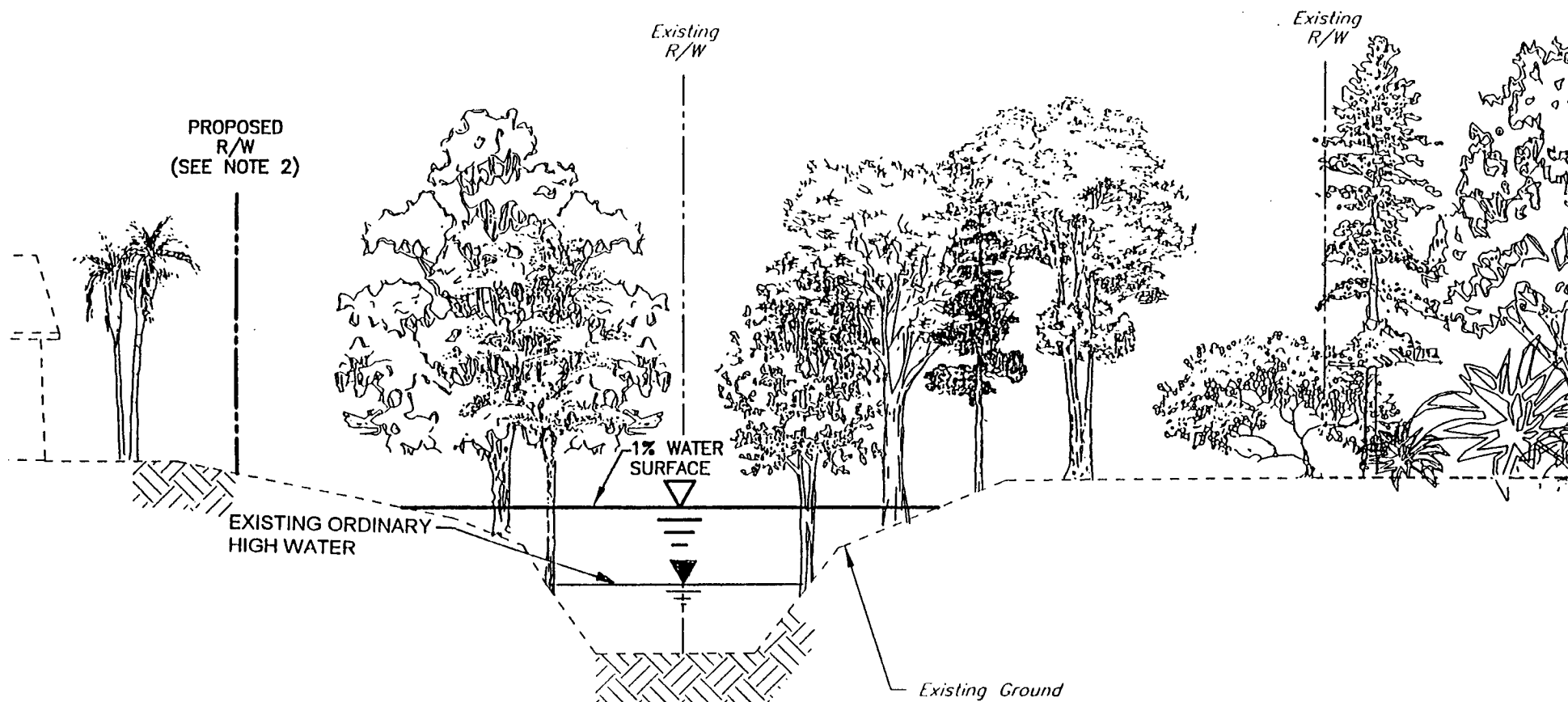
IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE
AS SHOWN

SHEET

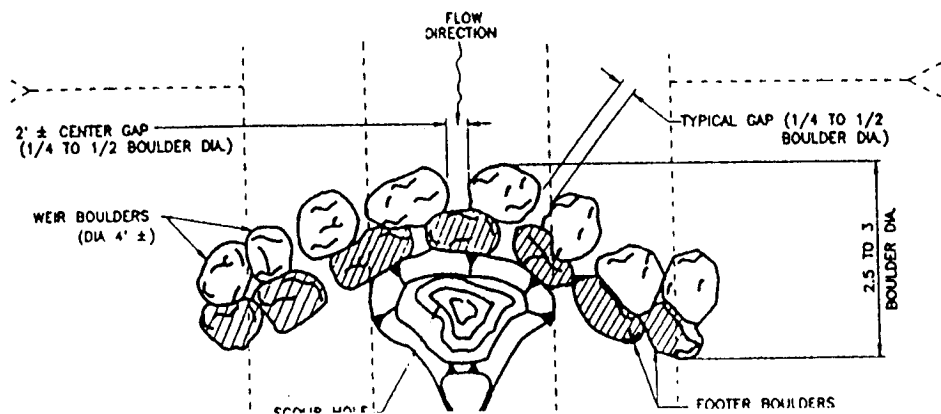
S-3

OF 21

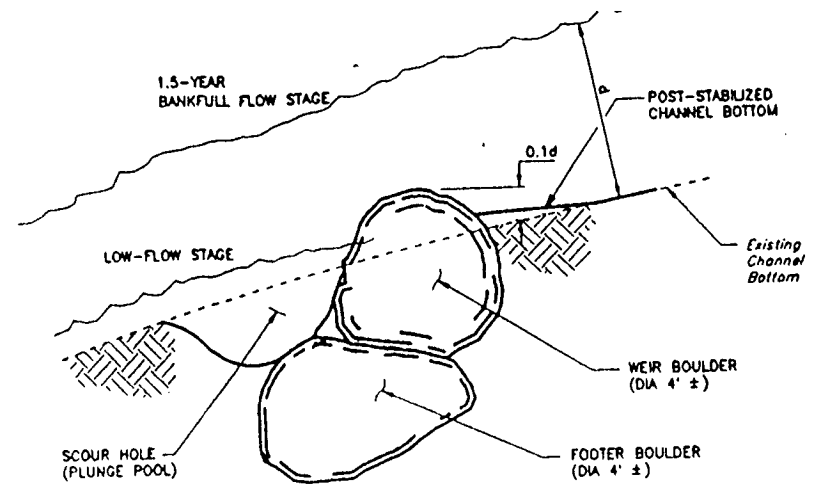


TYPICAL SECTION STA 252+85± TO STA 263+60±
NTS

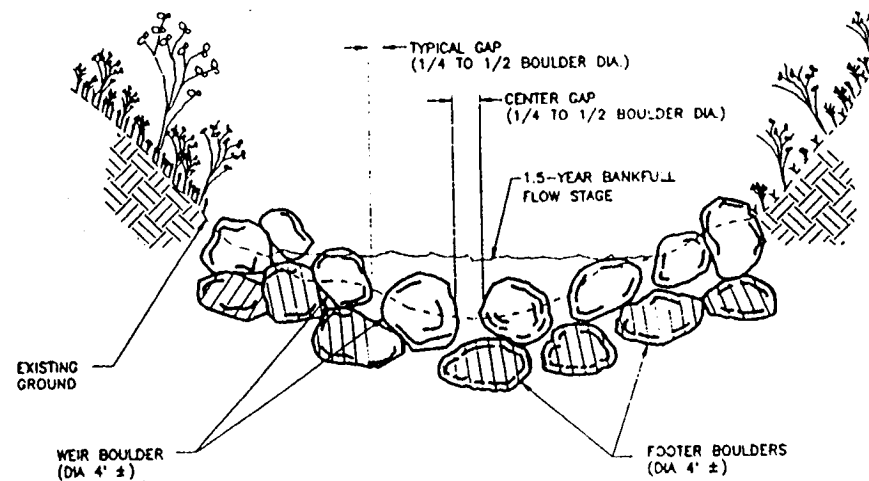
SHEET
S-3A
OF 21



3B.1 Plan View NTS




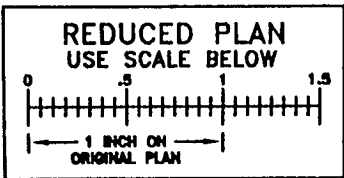
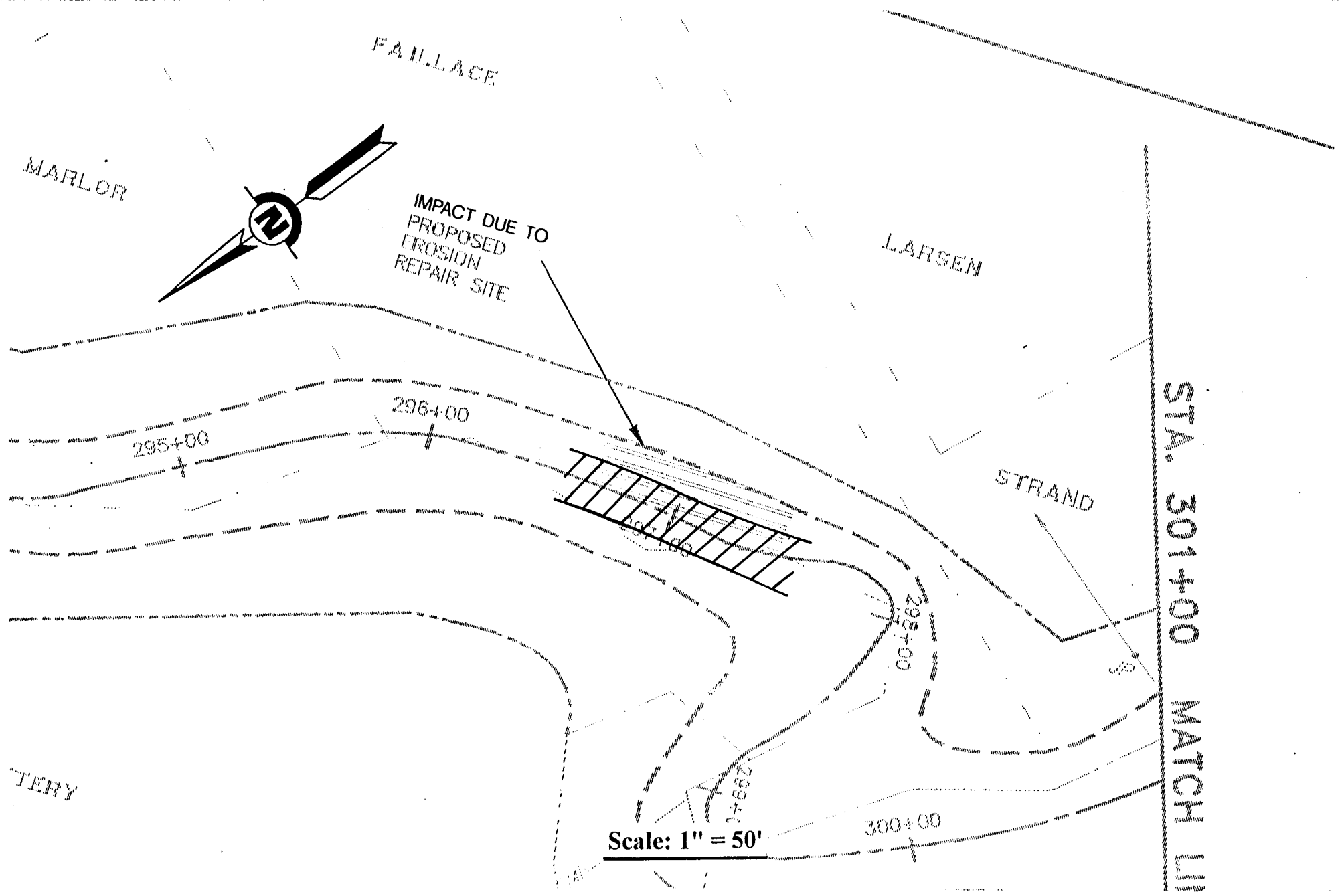
3B.3 Plan View NTS




3B.2 Plan View NTS

VORTEX ROCK WEIR DETAILS

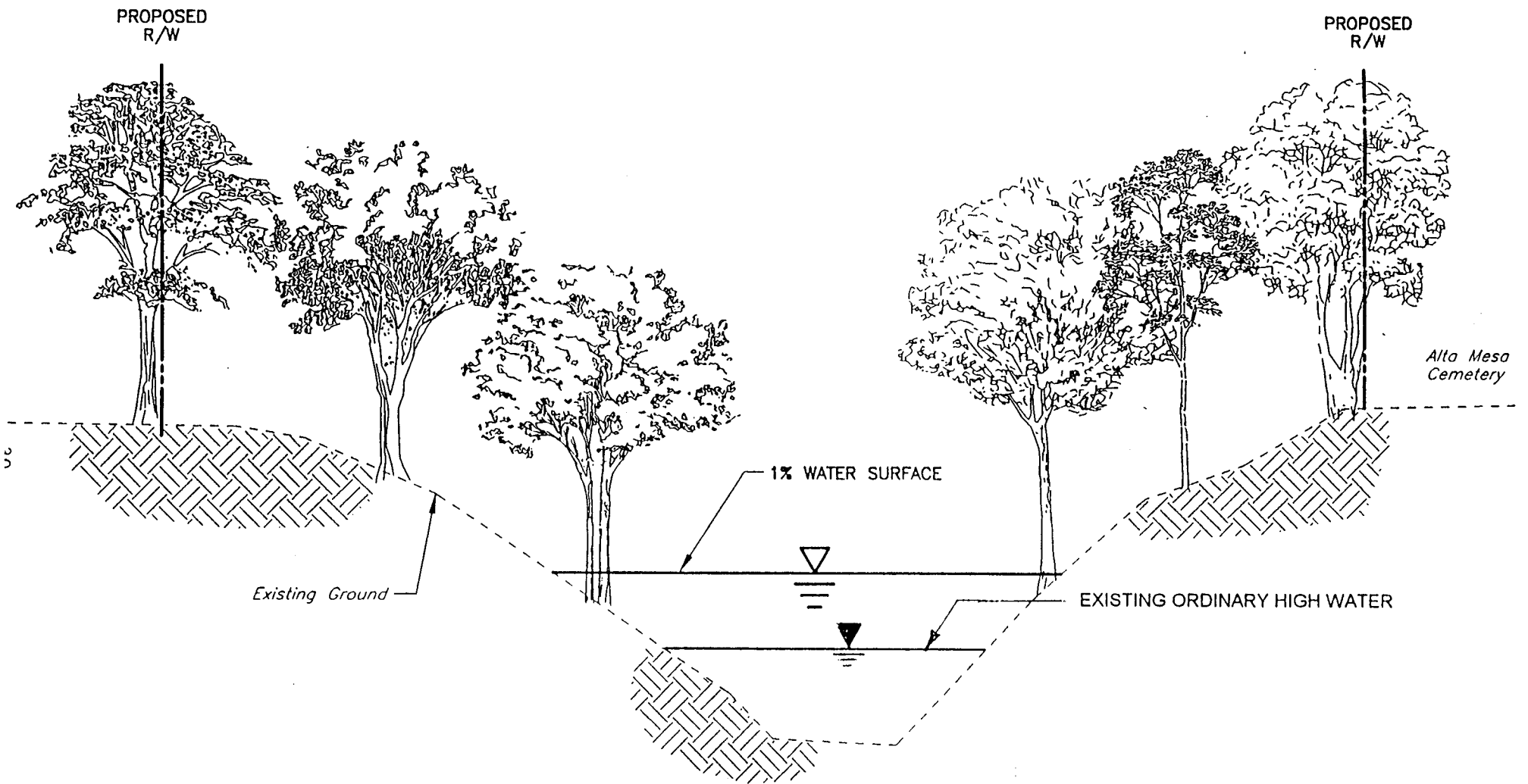
	DATE: 2/97	Santa Clara Valley Water District 	IMPACTS TO EXISTING JURISDICTIONAL WETLANDS AND ORDINARY HIGH WATER FROM PROPOSED CHANNEL MODIFICATIONS IN ADOBE CREEK	SCALE AS SHOWN
	DESIGN PS/SS			SHEET
	DRAWN SB/71			S 3B
	CHECKED: SW			OF 21
		PROJECT PURPOSE: TO PROVIDE FLOOD PROTECTION AND EROSION REPAIR		



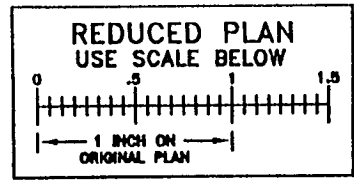
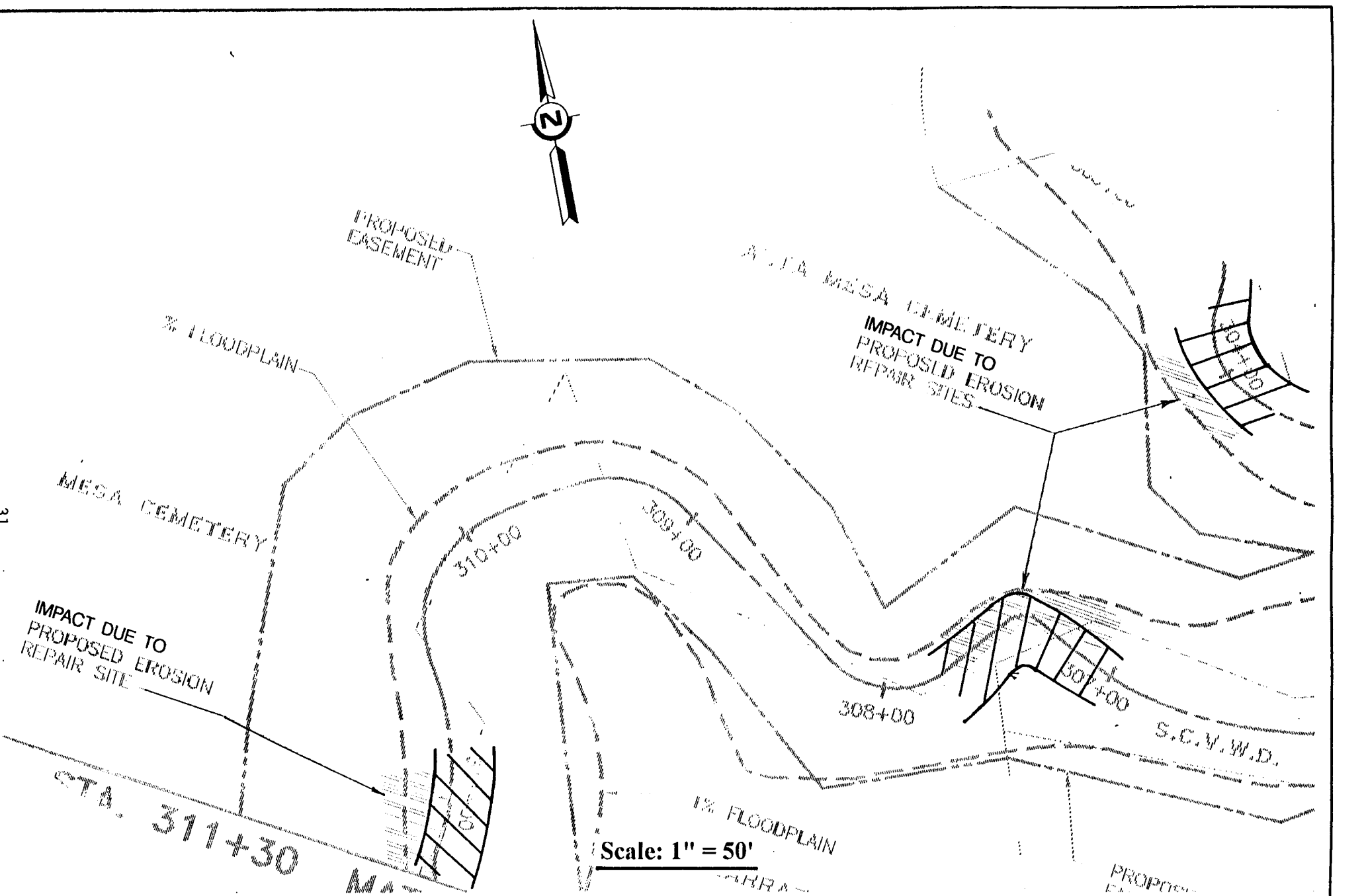
DATE: 2/97	Santa Clara Valley Water District 
DESIGN: PS/SS	
DRAWN: SB/TT	
CHECKED: SW	
PROJECT PURPOSE: TO PROVIDE FLOOD PROTECTION AND EROSION REPAIR	

**IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK**

SCALE AS SHOWN
SHEET S-4 OF 21



TYPICAL SECTION STA 289+35± TO STA 301+00±
NTS



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

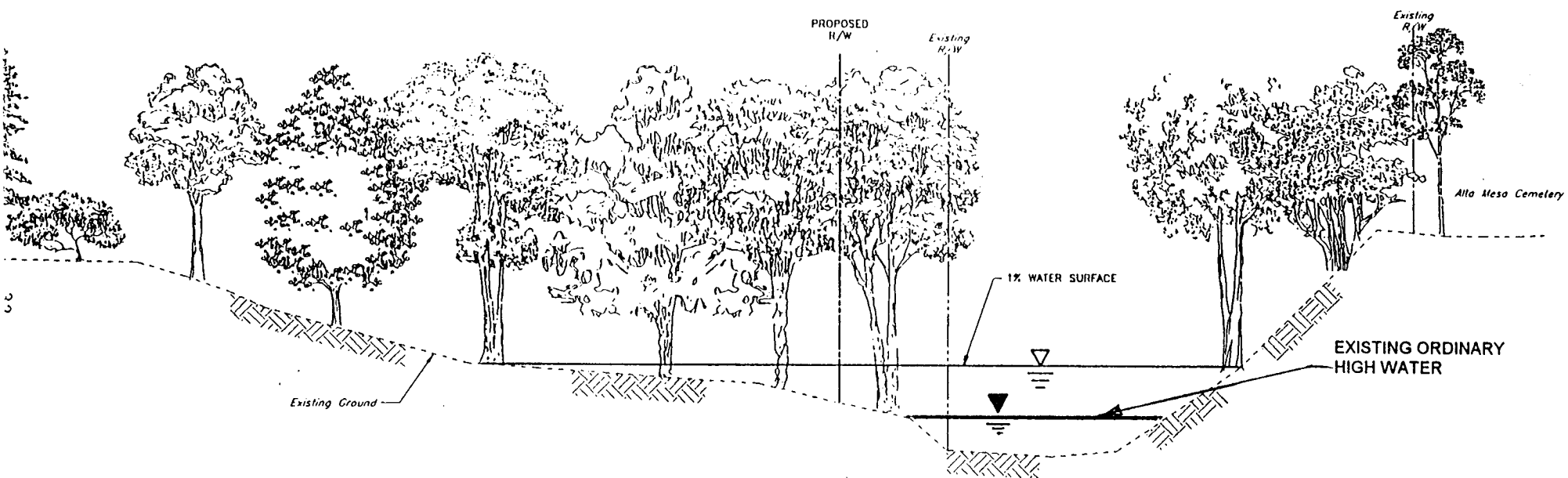
Santa Clara Valley Water District

PROJECT PURPOSE:
**TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR**

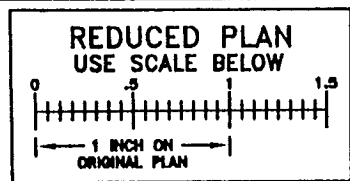
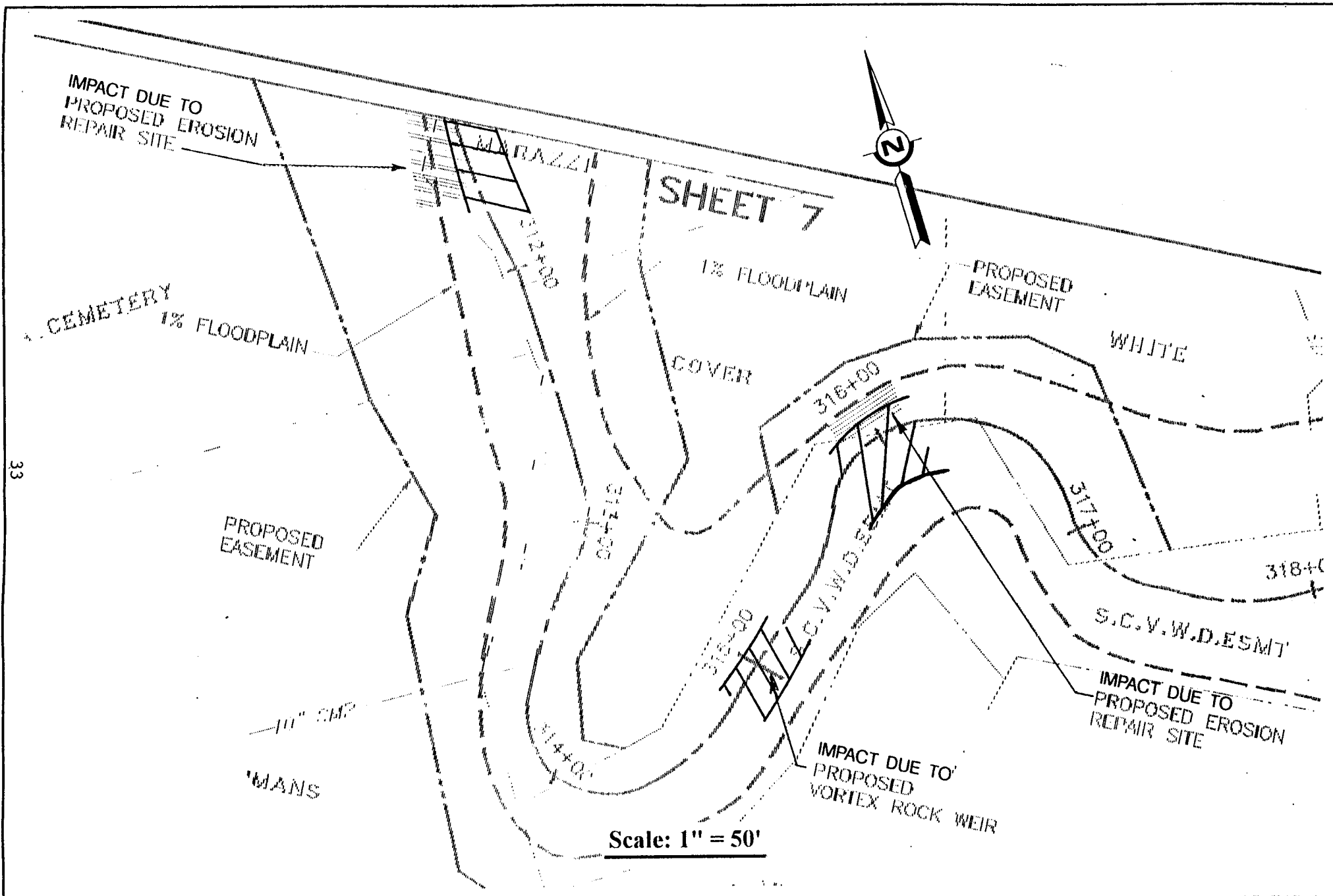
**IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK**


SCALE
AS SHOWN

SHEET
S-5
OF 21



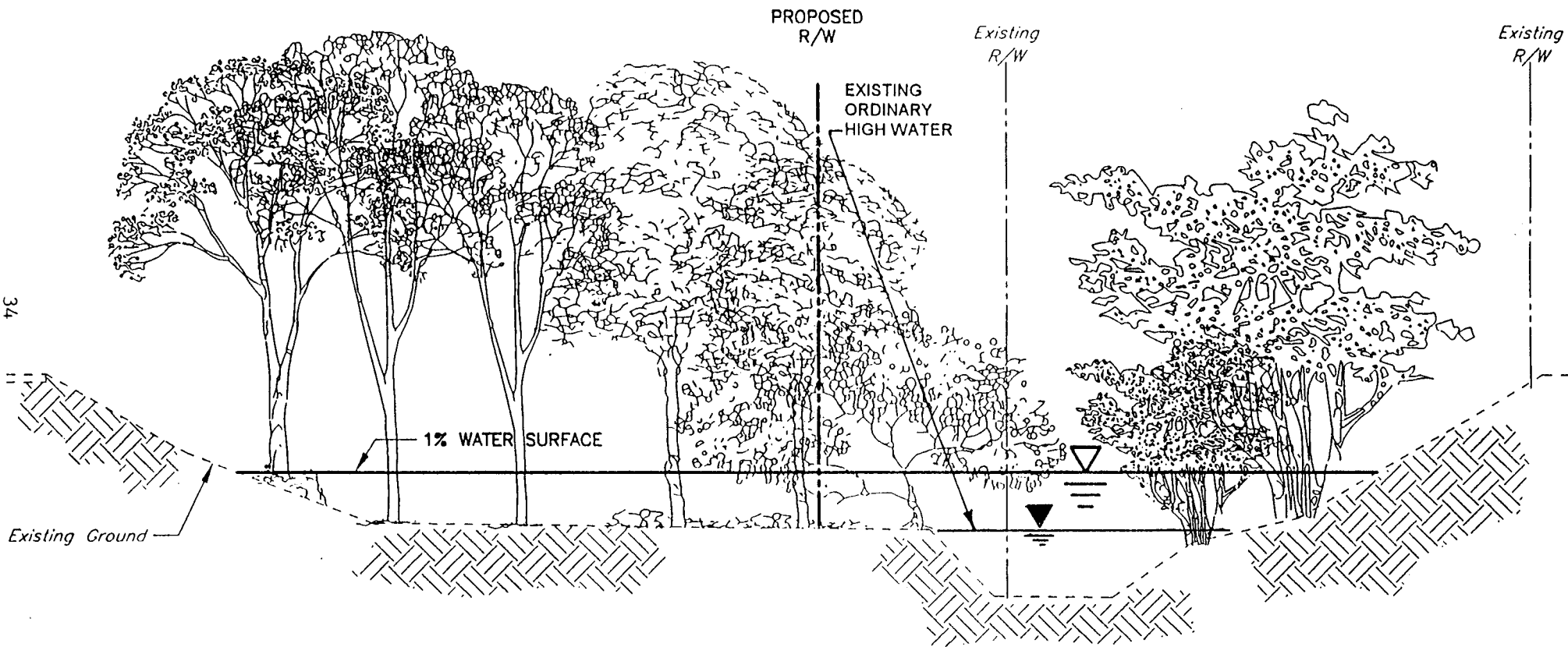
TYPICAL SECTION STA 301+00± TO STA 311+00±
NTS



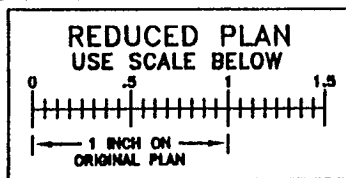
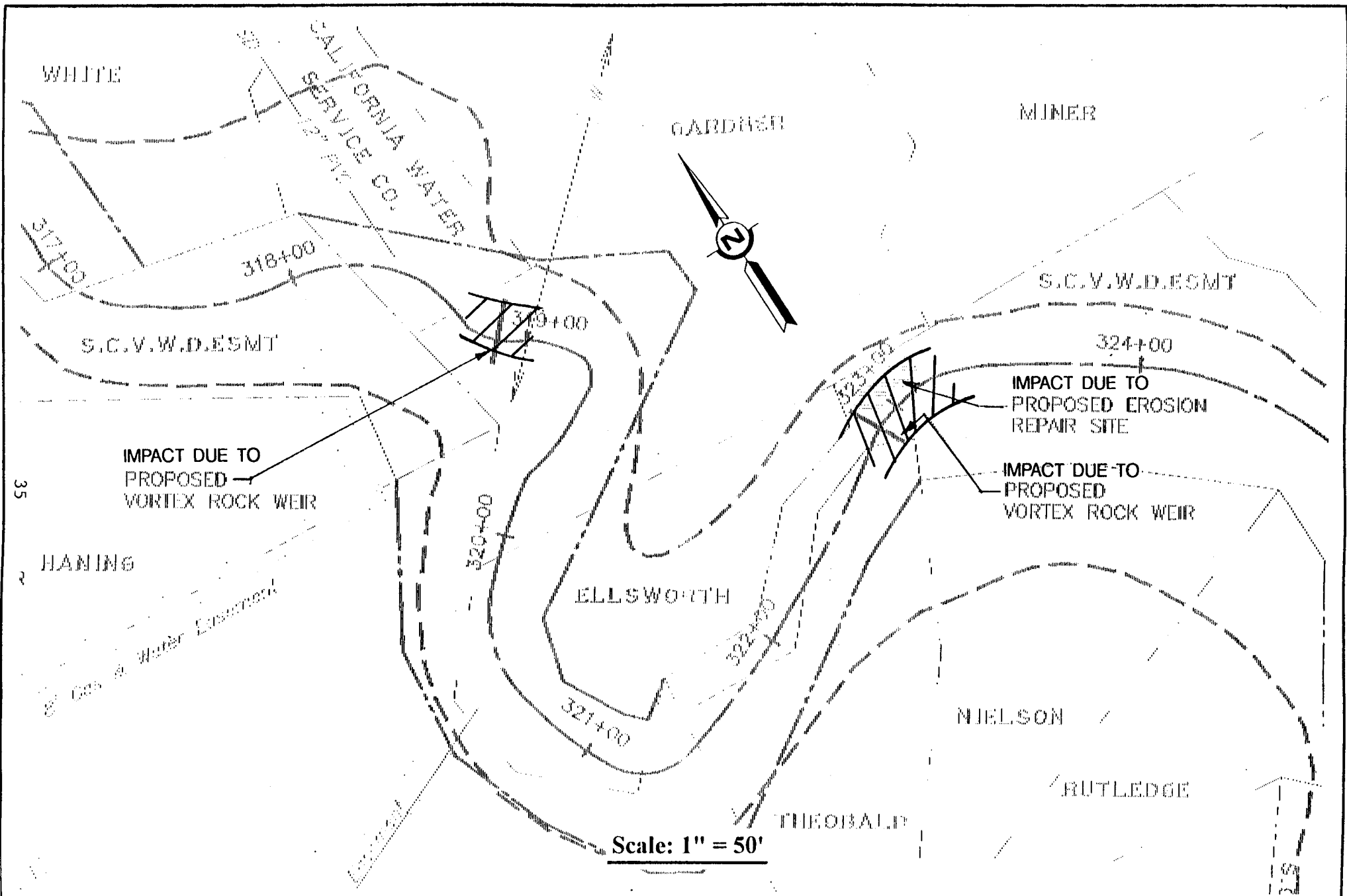
DATE: 2/97	Santa Clara Valley Water District 
DESIGN: PS/SS	
DRAWN: SB/TI	
CHECKED: SW	
PROJECT PURPOSE: TO PROVIDE FLOOD PROTECTION AND EROSION REPAIR	

**IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK**

SCALE AS SHOWN
SHEET
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TYPICAL SECTION STA 311+30± TO STA 327+00±
NTS



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

Santa Clara Valley Water District

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TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

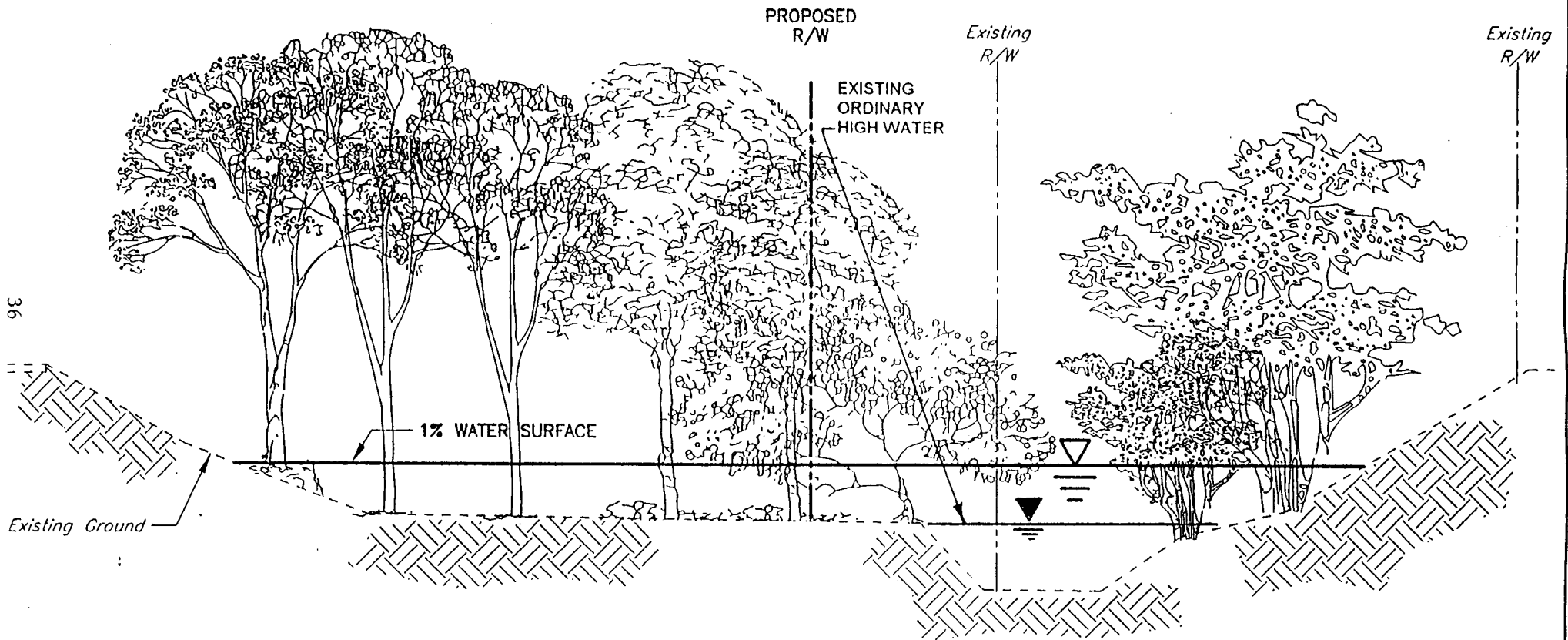
**IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK**

SCALE
AS SHOWN

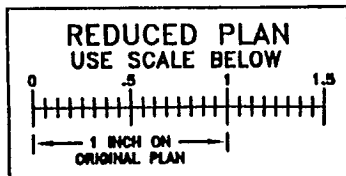
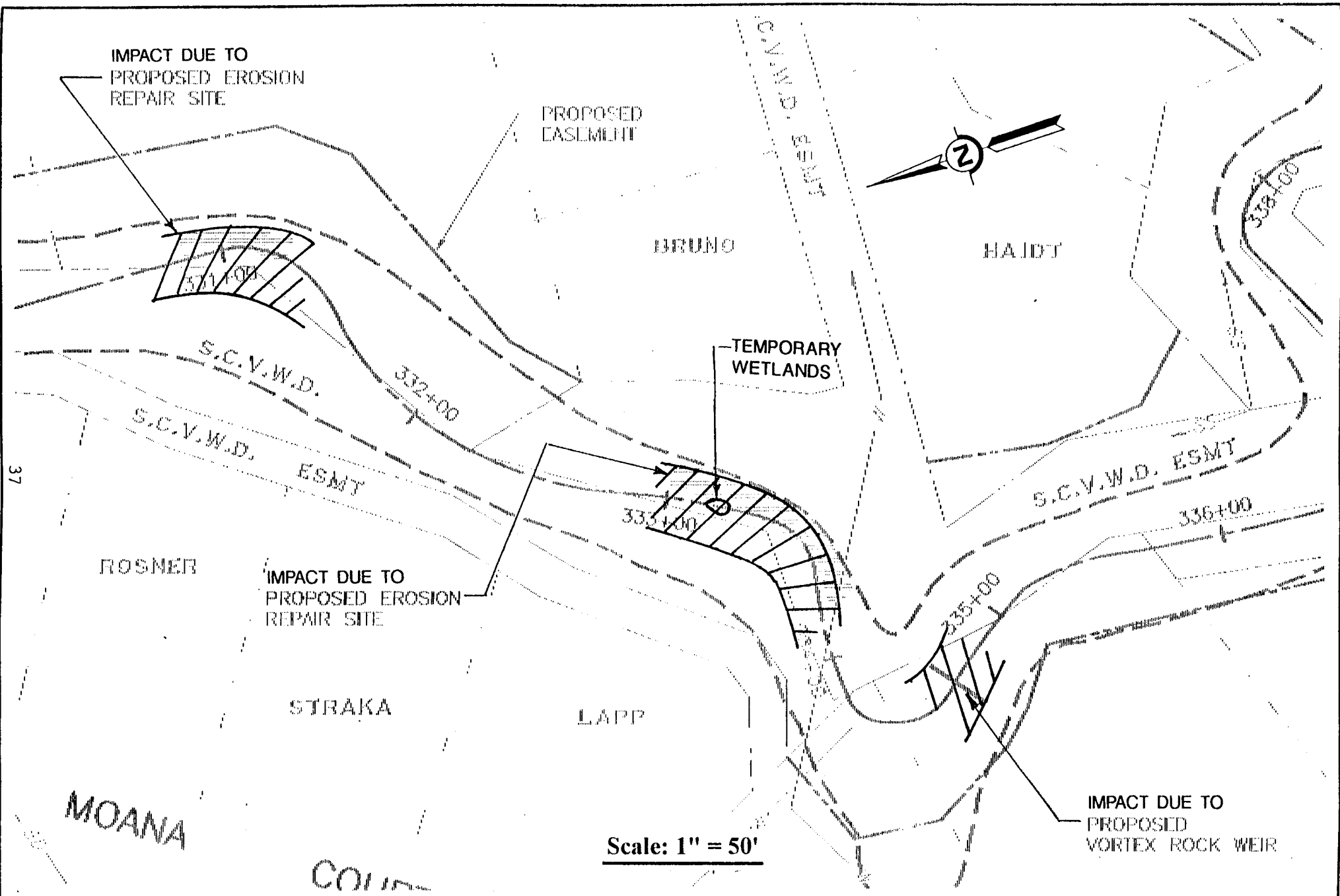
SHEET

S-7

OF 21



TYPICAL SECTION STA 311+30± TO STA 327+00±
NTS



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

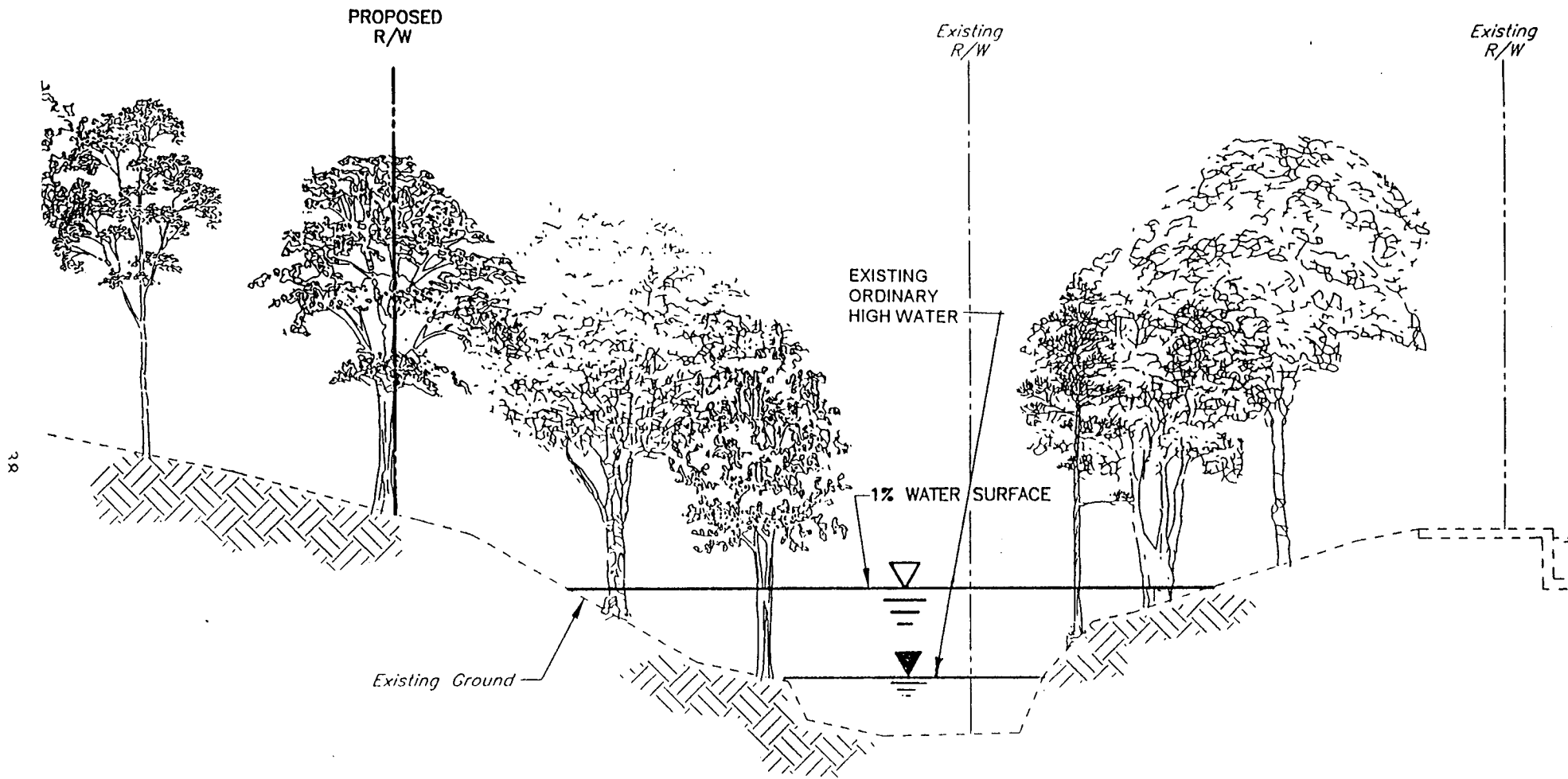
**IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK**

SCALE
AS SHOWN

SHEET

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OF 21



TYPICAL SECTION STA 327+30± TO STA 340+05±
NTS

DURHAM

PLUMARTA

COLEMAN

HARWAY

GREER

ORNSTEIN

1% FLOODPLAIN

369+00

370+00

IMPACT DUE TO
PROPOSED EROSION
REPAIR SITE

371+00

372+00

LEDTERMAN

FERRARI

DOLAN

STA. 372+65

MATCH LINE SHEET 12

Scale: 1" = 50'

REDUCED PLAN
USE SCALE BELOW



DATE:
2/97

DESIGN:
PS/SS

DRAWN:
SB/TI

CHECKED:
SW

Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

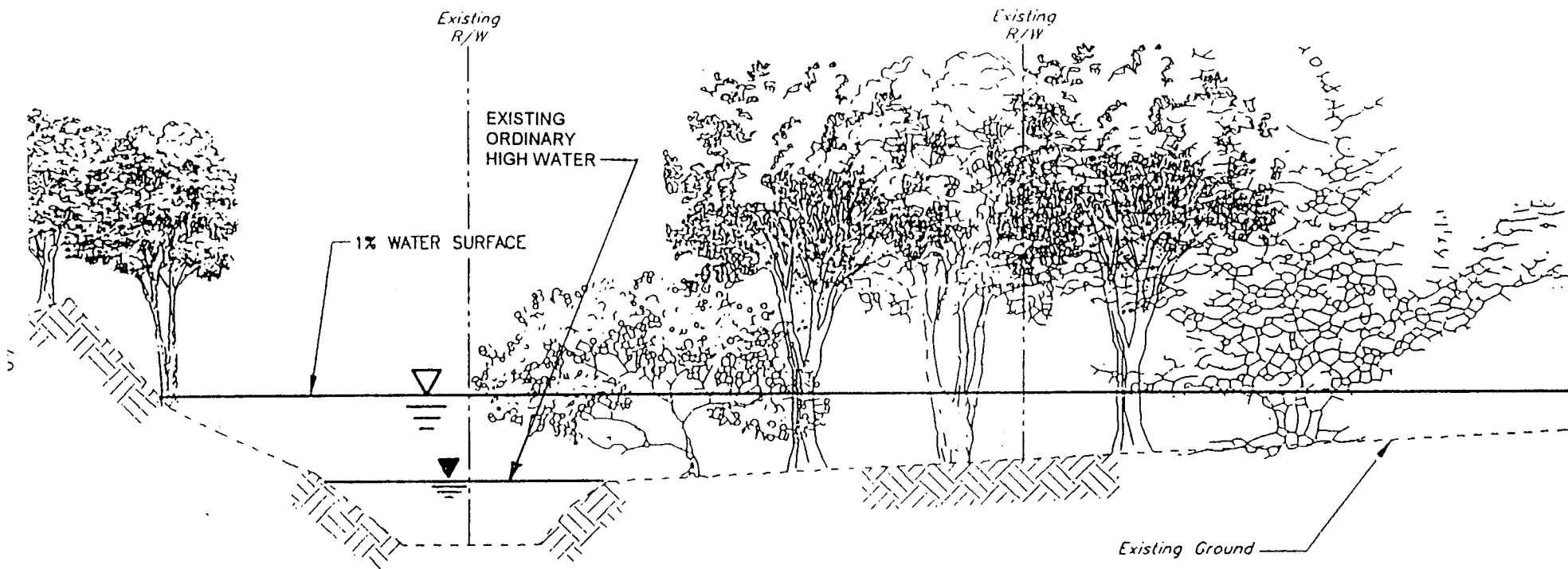
IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE
AS SHOWN

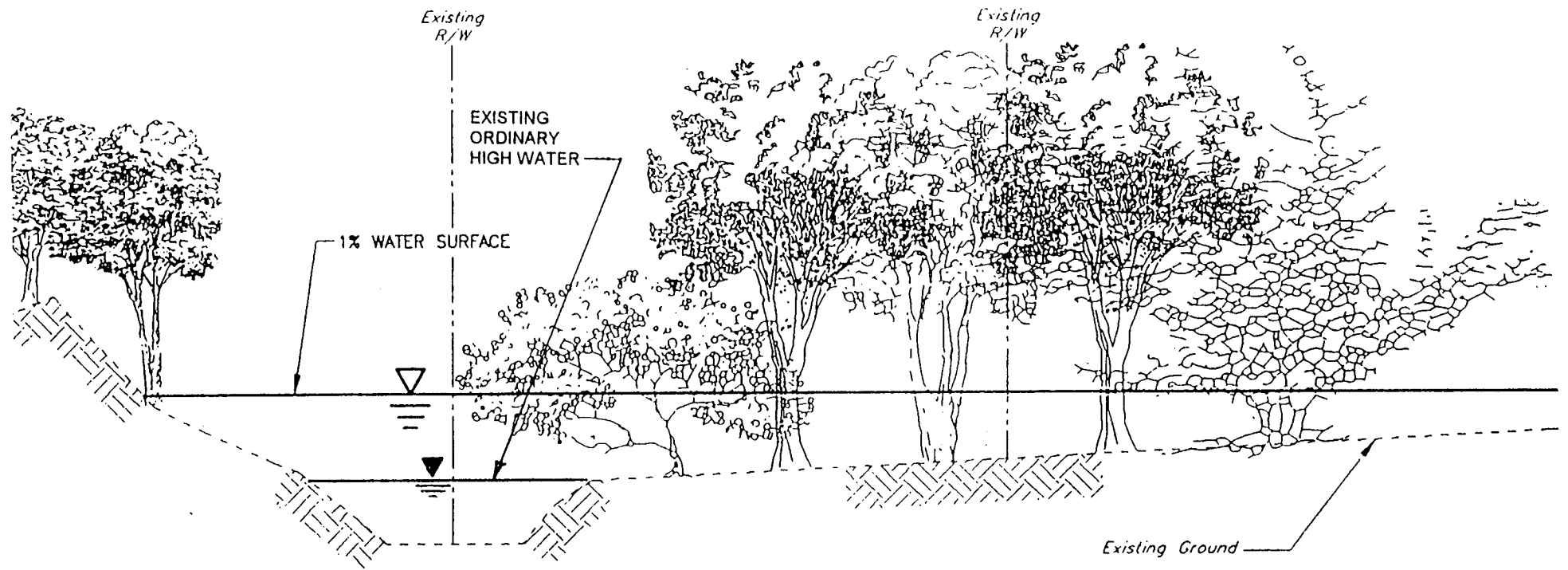
SHEET

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OF 21

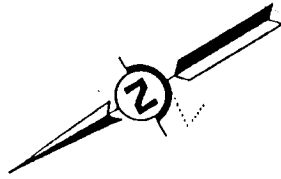


TYPICAL SECTION STA 365+20± TO STA 372+65±
 NTS



TYPICAL SECTION STA 365+20± TO STA 372+65±
NTS

KAYE
&
GERSHUNY



EXPRESSWAY

IMPACT DUE TO
PROPOSED
DROP
STRUCTURE

IMPACT DUE TO
PROPOSED
DROP
STRUCTURE

PROPOSED
SEMENT

Existing 12' x 10' RCB

377+00

379+00

COUNTY OF SANTA CLARA

PROPOSED ADDITIONAL
12' x 12' RCB

IMPACT DUE TO
PROPOSED TRANSITION
STRUCTURES

PROPOSED
SEMENT

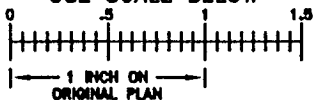
TEMPORARY
WETLANDS

FLOODPLAIN

ORNSTEIN

Scale: 1" = 50'

REDUCED PLAN
USE SCALE BELOW



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

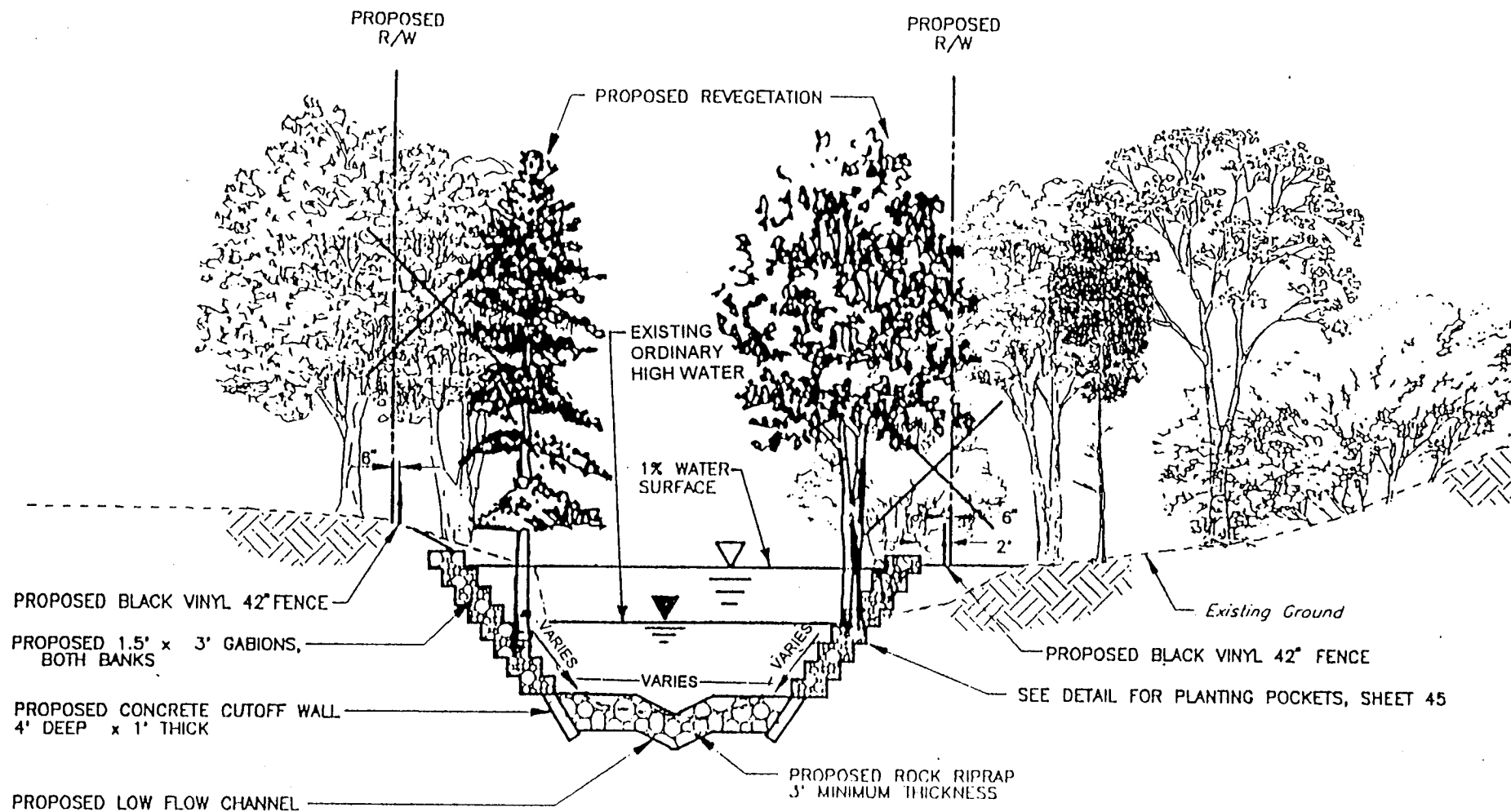
SCALE
AS SHOWN

SHEET

S-10

OF 21

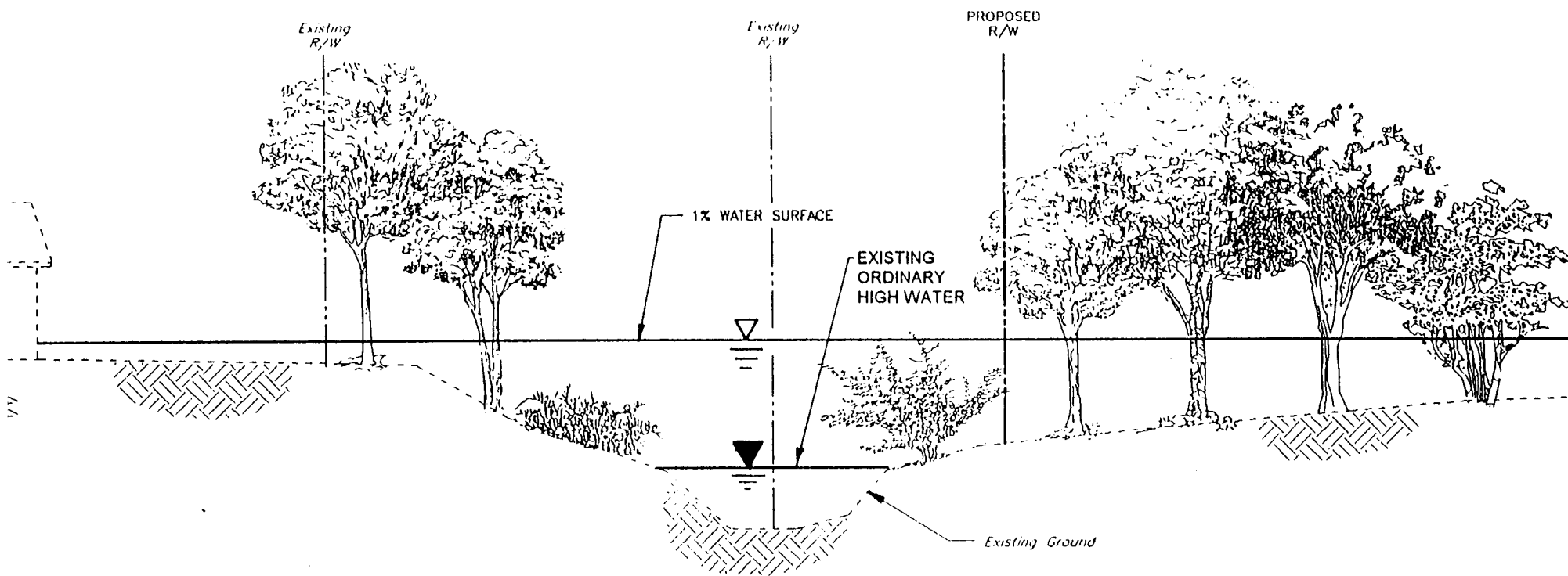
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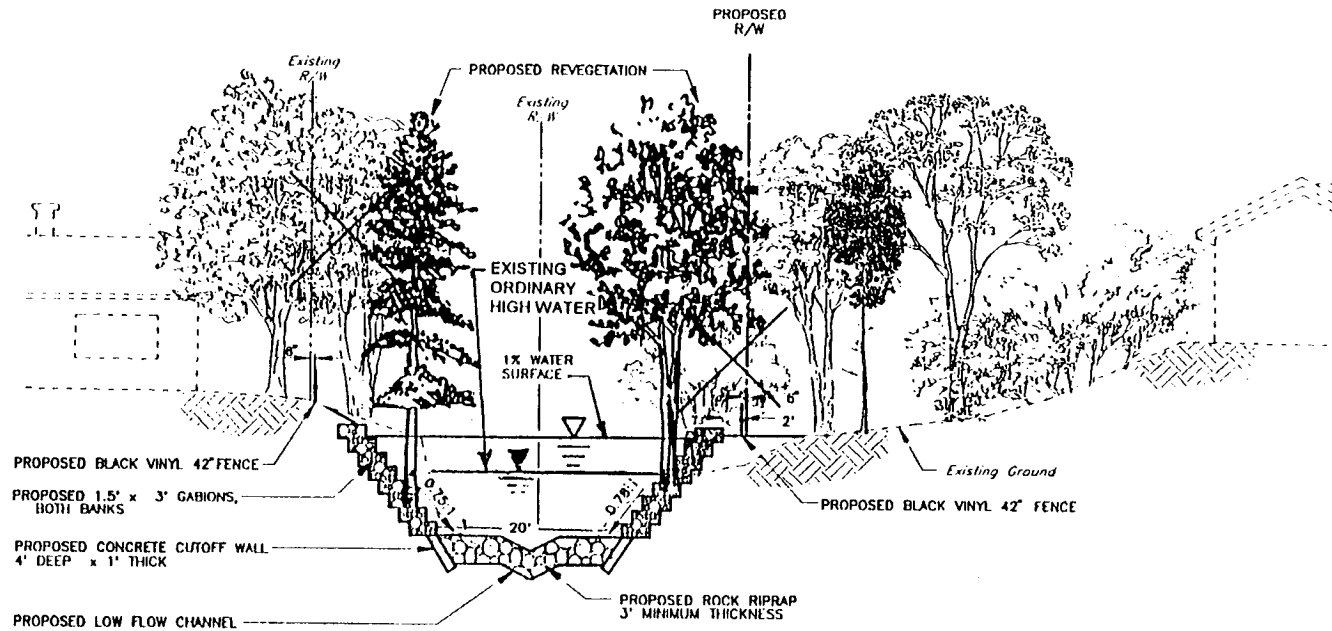
STA 375+60 TO STA 376+08± & STA 377+70 TO STA 378+40±
NTS

SHEET
S-10A

OF 21

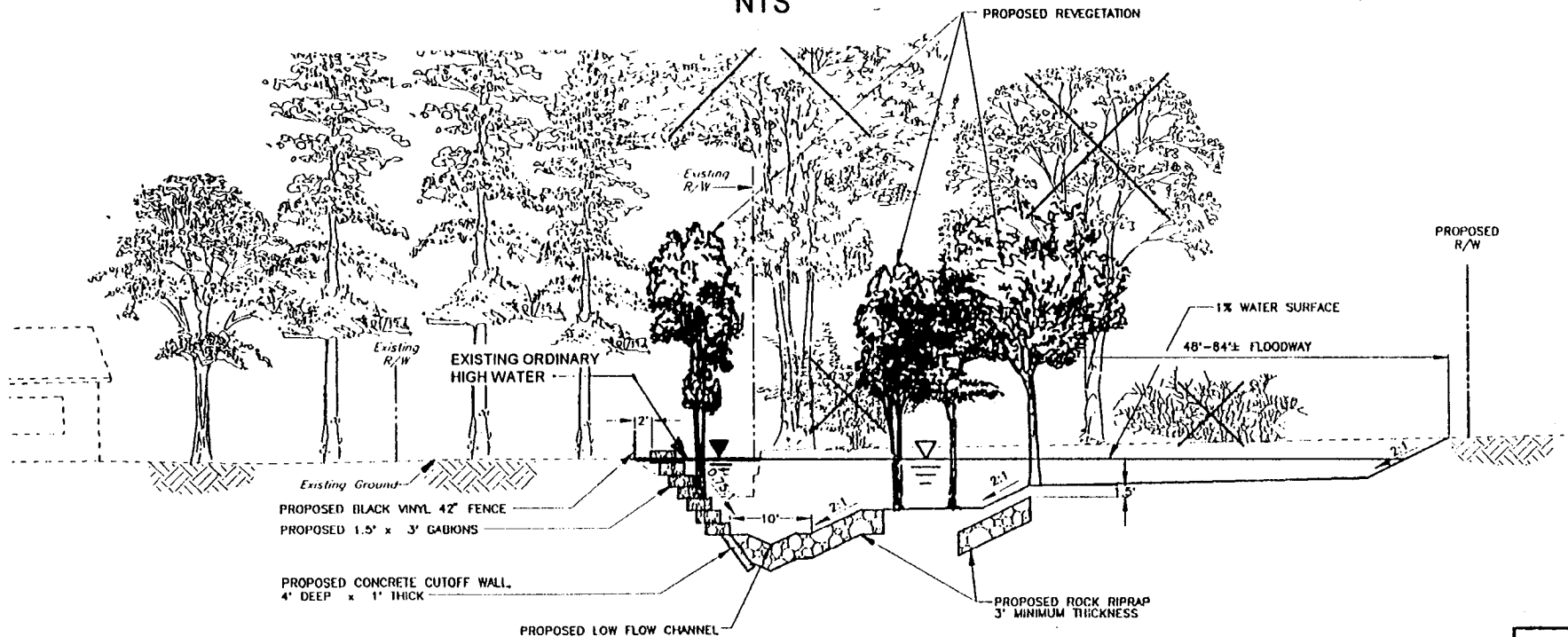


TYPICAL SECTION STA 378+40± TO STA 389+75±
NTS



TYPICAL SECTION STA 389+75± TO STA 391+50±

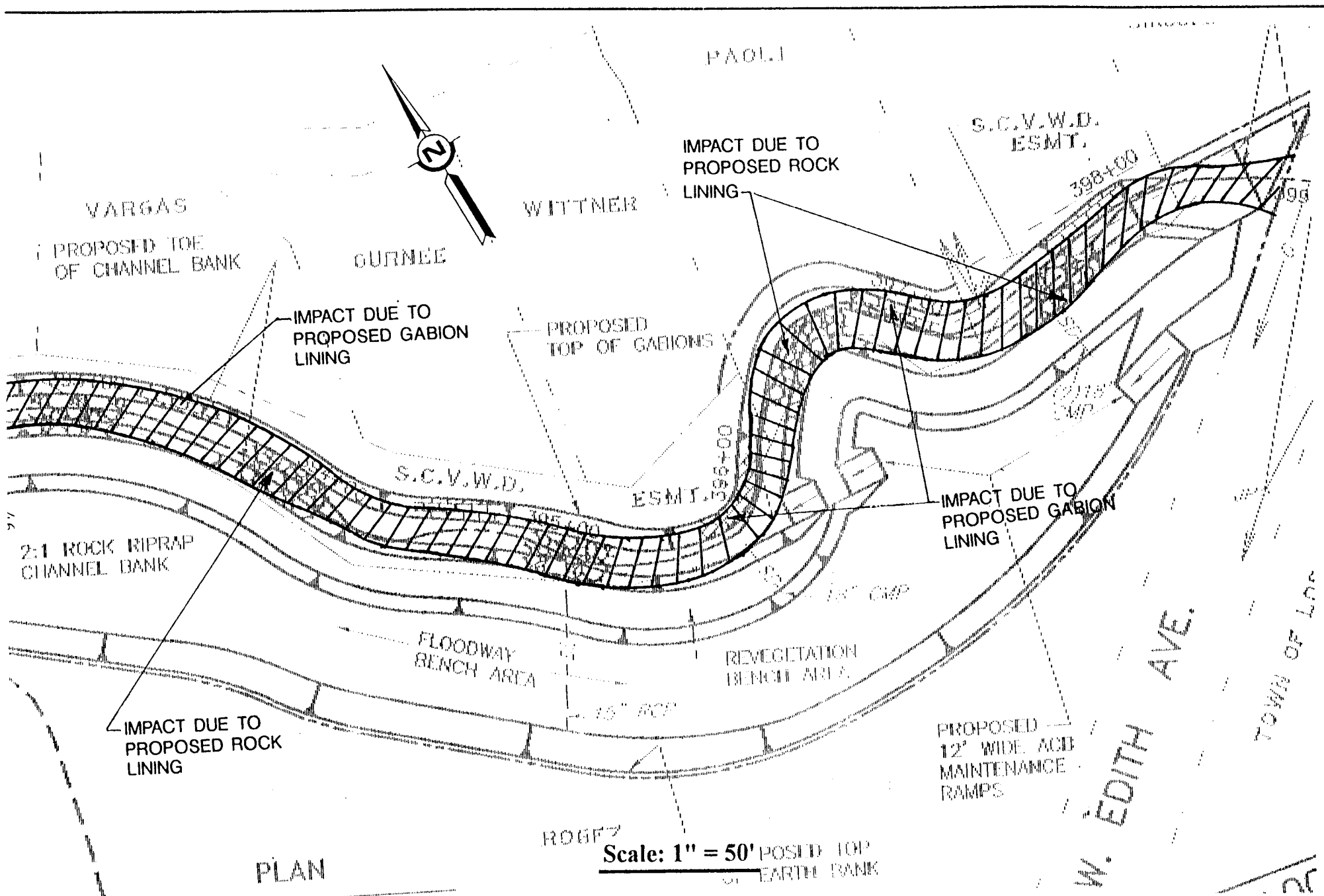
NTS



TYPICAL SECTION STA 392+00± TO STA 398+00±

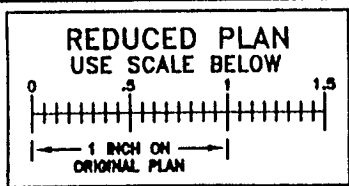
NTS

SHEET
S-11B
OF 21



PLAN

Scale: 1" = 50'



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

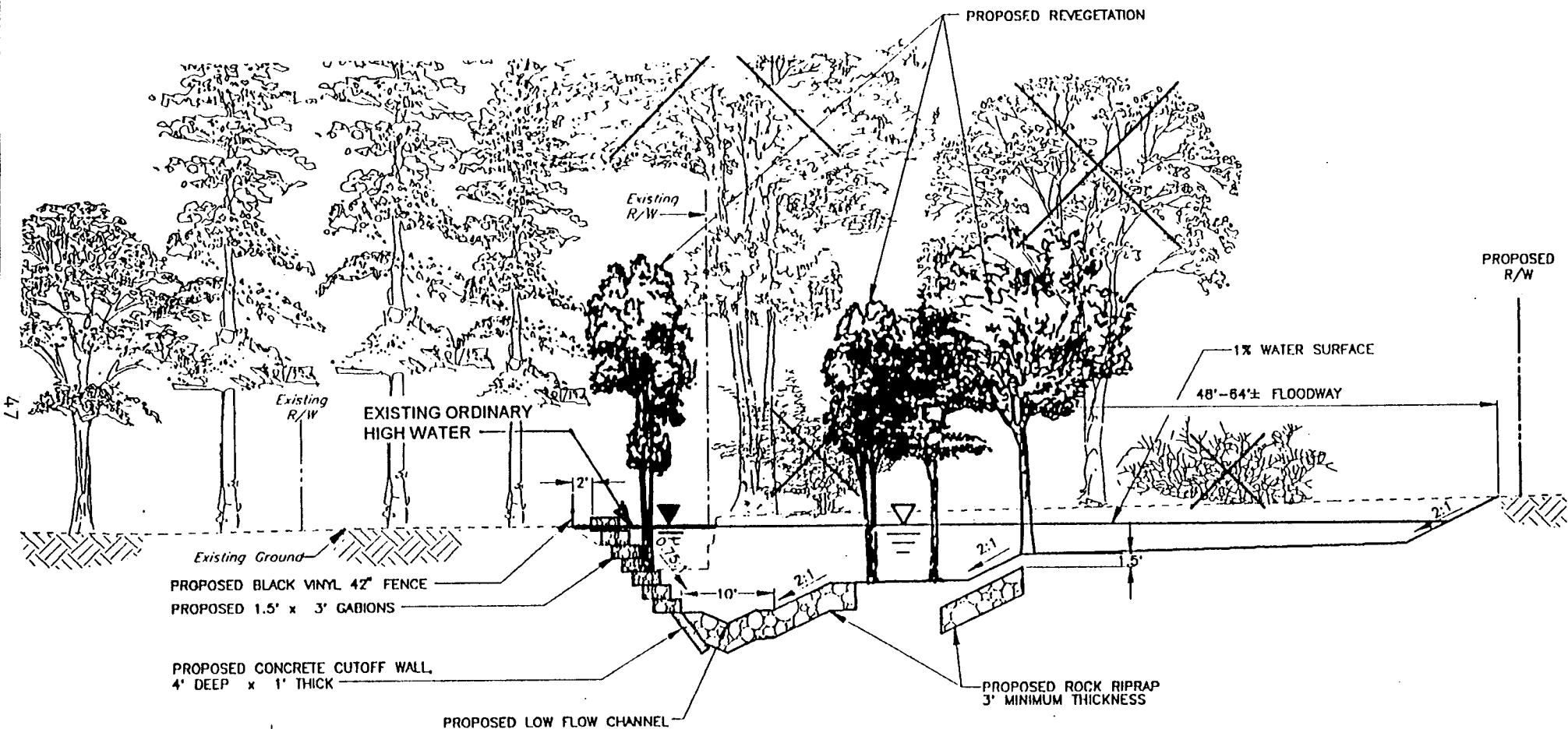
Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

**IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK**

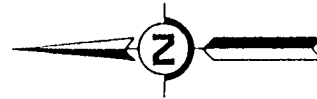
SCALE
AS SHOWN

SHEET
S-12
OF 21



TYPICAL SECTION STA 392+00± TO STA 398+00±
NTS

NUE



BURKE ROAD

CARSTEN

GESCHKE

IMPACT DUE TO
PROPOSED TRANSITION
STRUCTURES

PROPOSED
EASEMENT

1% FLOODPLAIN

420+00

421+00

422+00

423+00

424+00

PROPOSED
EASEMENT

PROPOSED 24'
WIDE BRIDGE

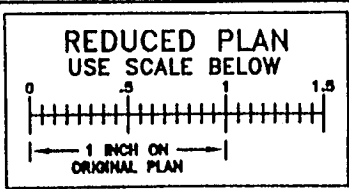
TEMPORARY WETLANDS


PROF
EASE

DOW

Scale: 1" = 50'

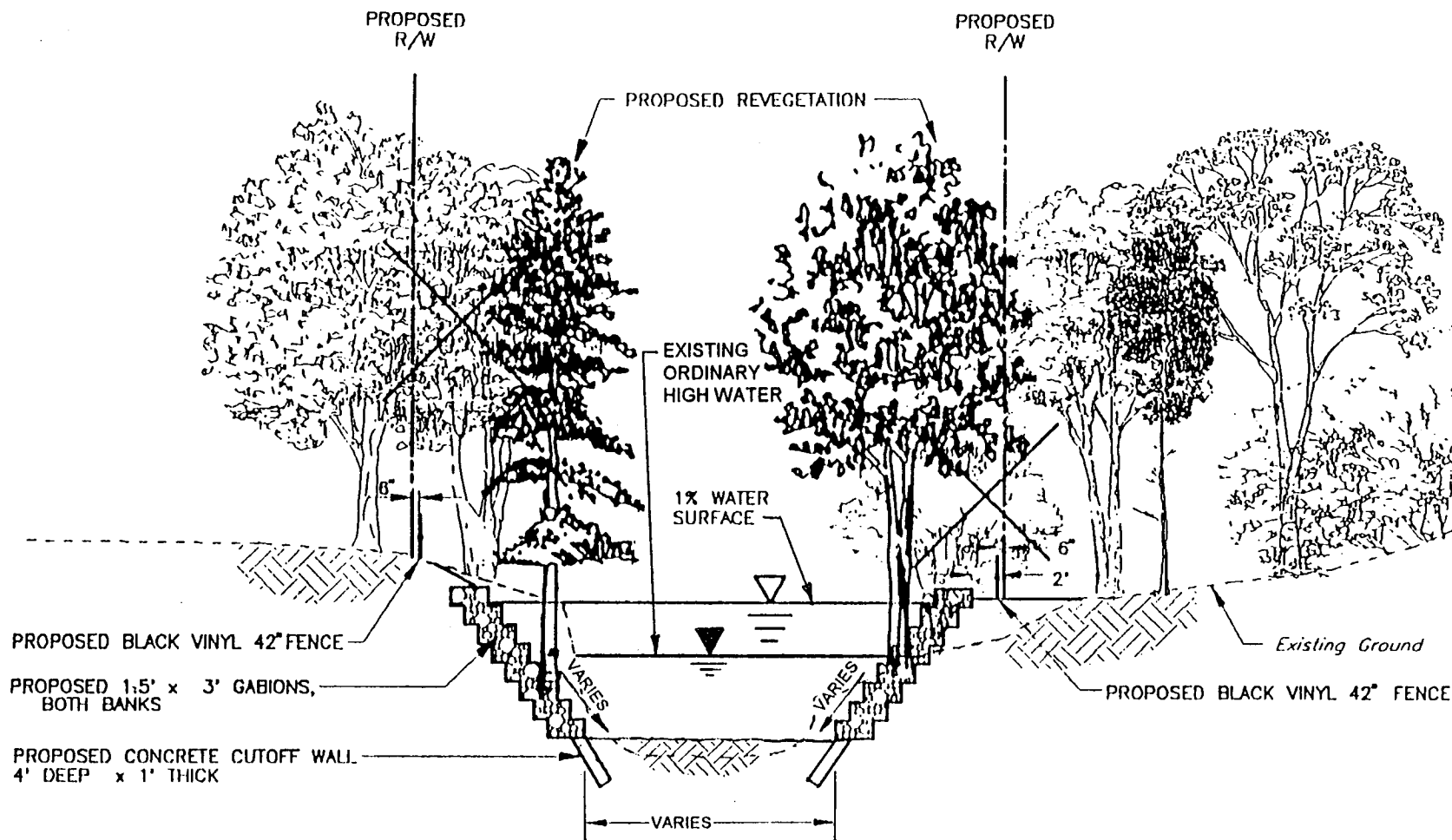
GESCHKE



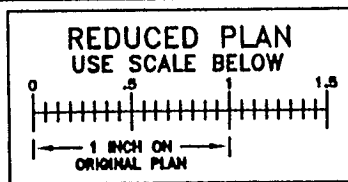
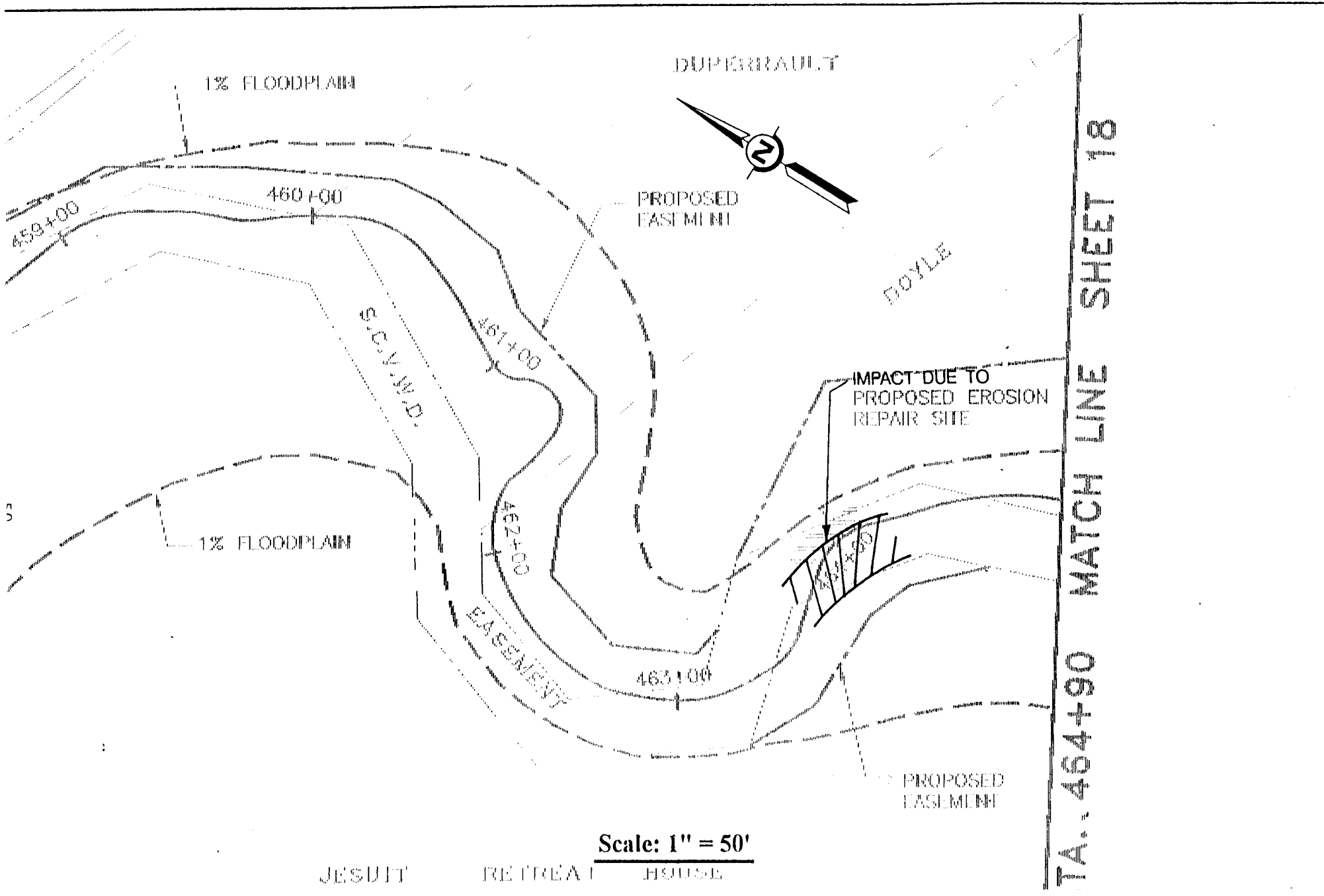
DATE: 2/97	 Santa Clara Valley Water District
DESIGN: PS/SS	
DRAWN: SB/TI	PROJECT PURPOSE: TO PROVIDE FLOOD PROTECTION AND EROSION REPAIR
CHECKED: SW	

IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE AS SHOWN
SHEET S-13
OF 21



STA 422+00 TO STA 422+10± & STA 422+50 TO STA 422+60±
NTS



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

Santa Clara Valley Water District

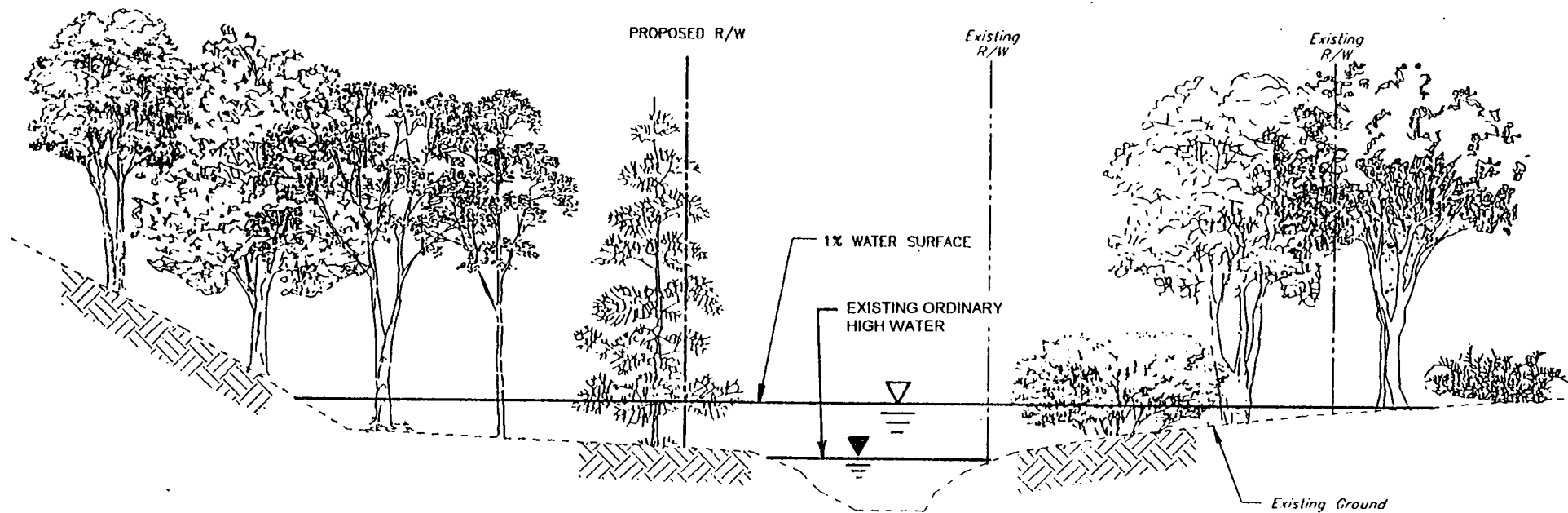
PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

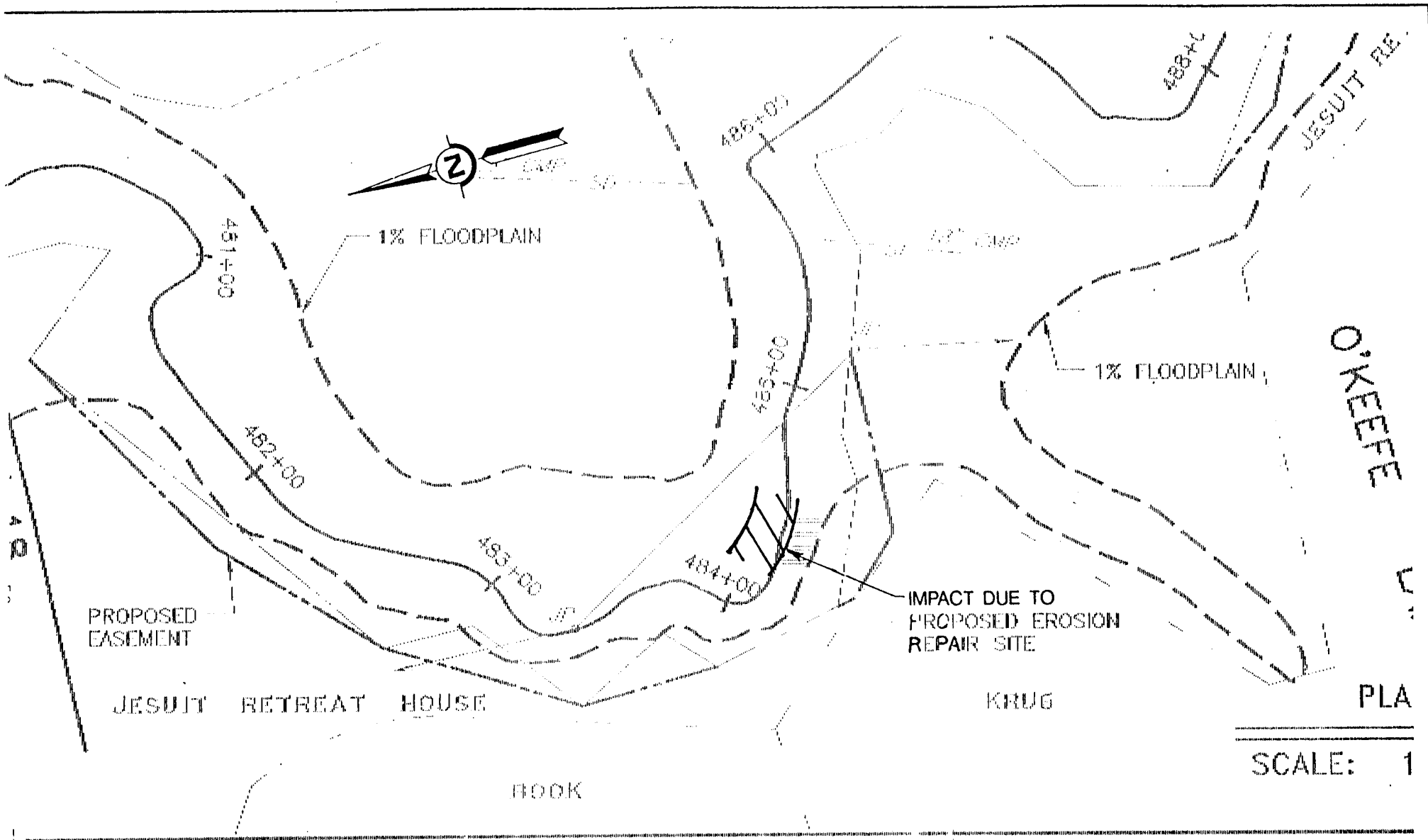
SCALE
AS SHOWN

SHEET
S-14
OF 21

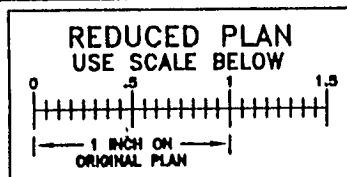
51




TYPICAL SECTION STA 458+55± TO STA 464+90±
NTS



FOR TYPICAL SECTION, SEE SHEET 40, SECTION B
Scale: 1" = 50' 34+50 ± TO STA. 490+00 ±



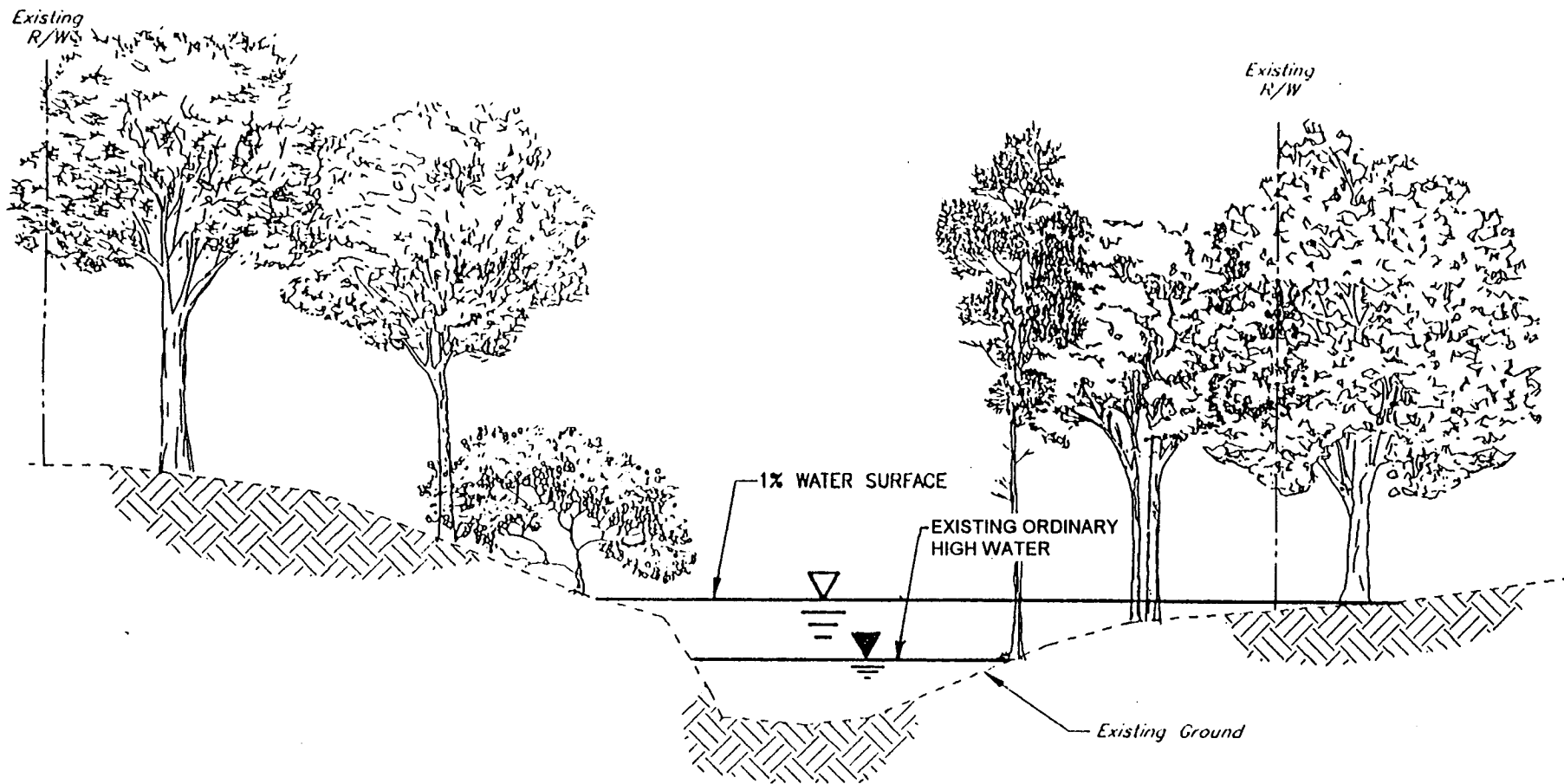
DATE: 2/97	Santa Clara Valley Water District 
DESIGN: PS/SS	
DRAWN: SB/TI	
CHECKED: SW	
PROJECT PURPOSE: TO PROVIDE FLOOD PROTECTION AND EROSION REPAIR	

IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE
AS SHOWN

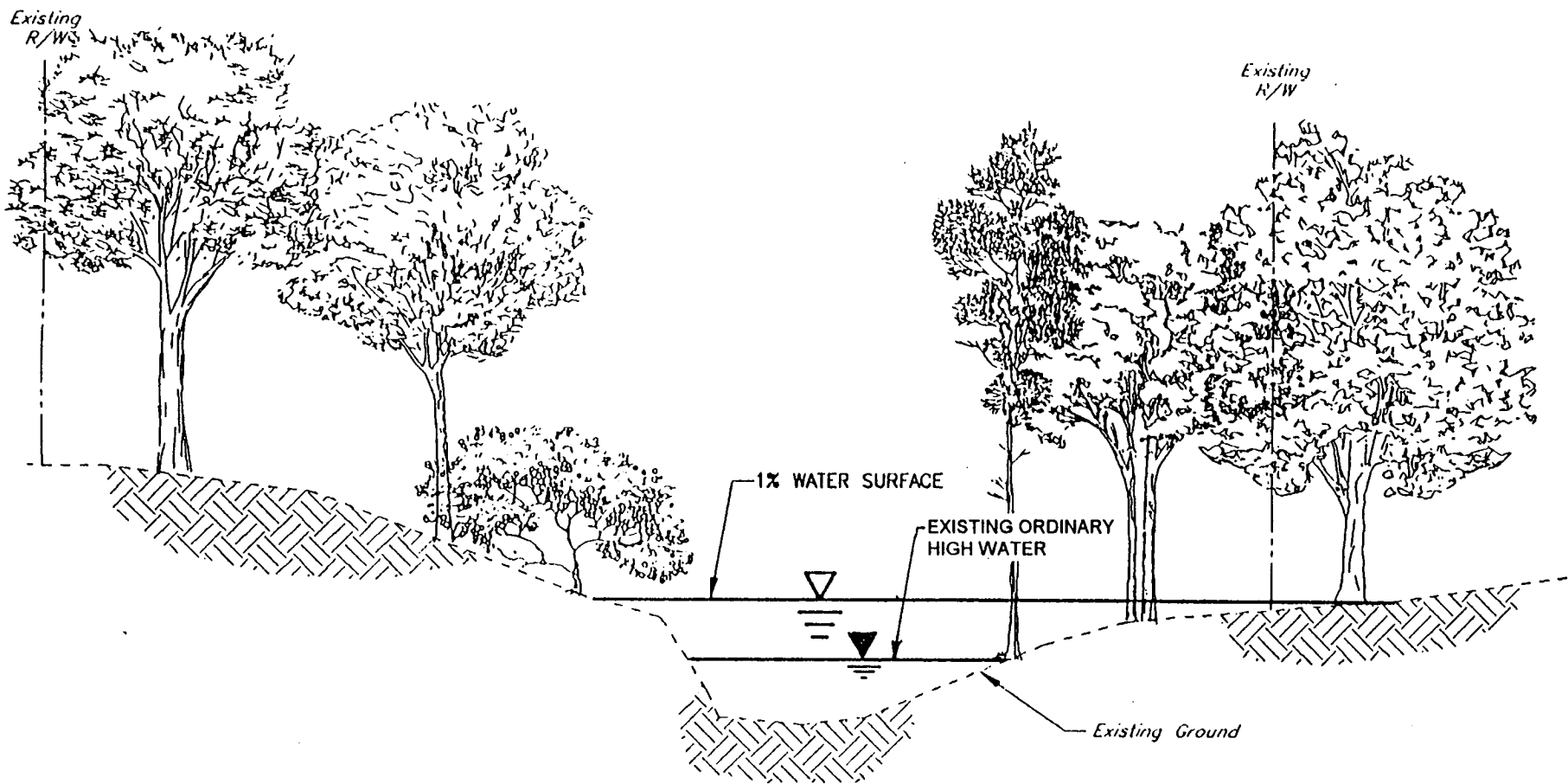
SHEET
S-15
OF 21

53

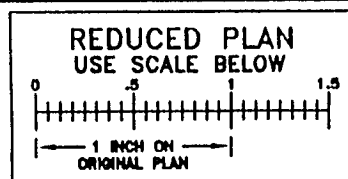
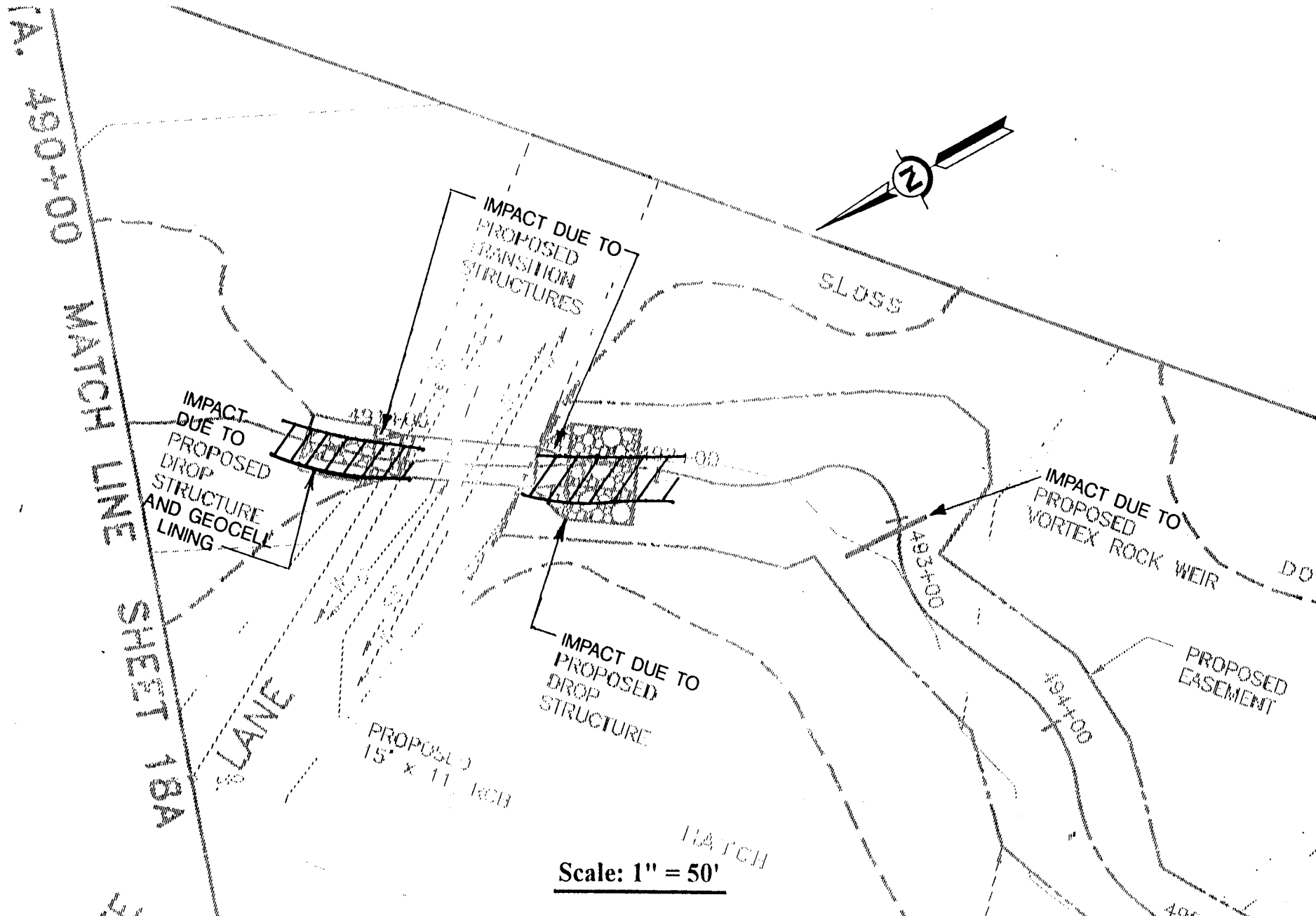


TYPICAL SECTION STA 464+90± TO STA 484+50±
NTS

53



TYPICAL SECTION STA 464+90± TO STA 484+50±
NTS



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

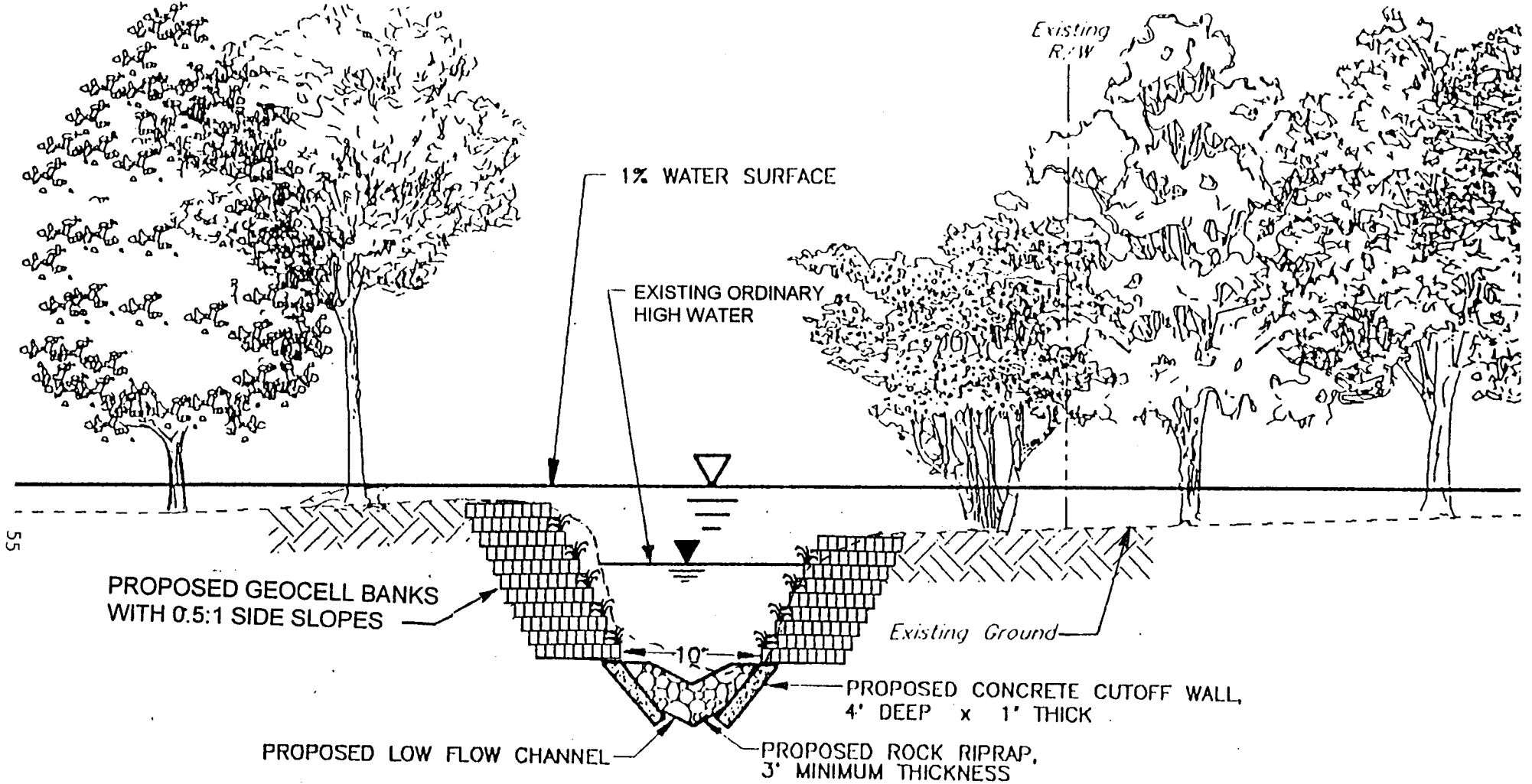
IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE
AS SHOWN

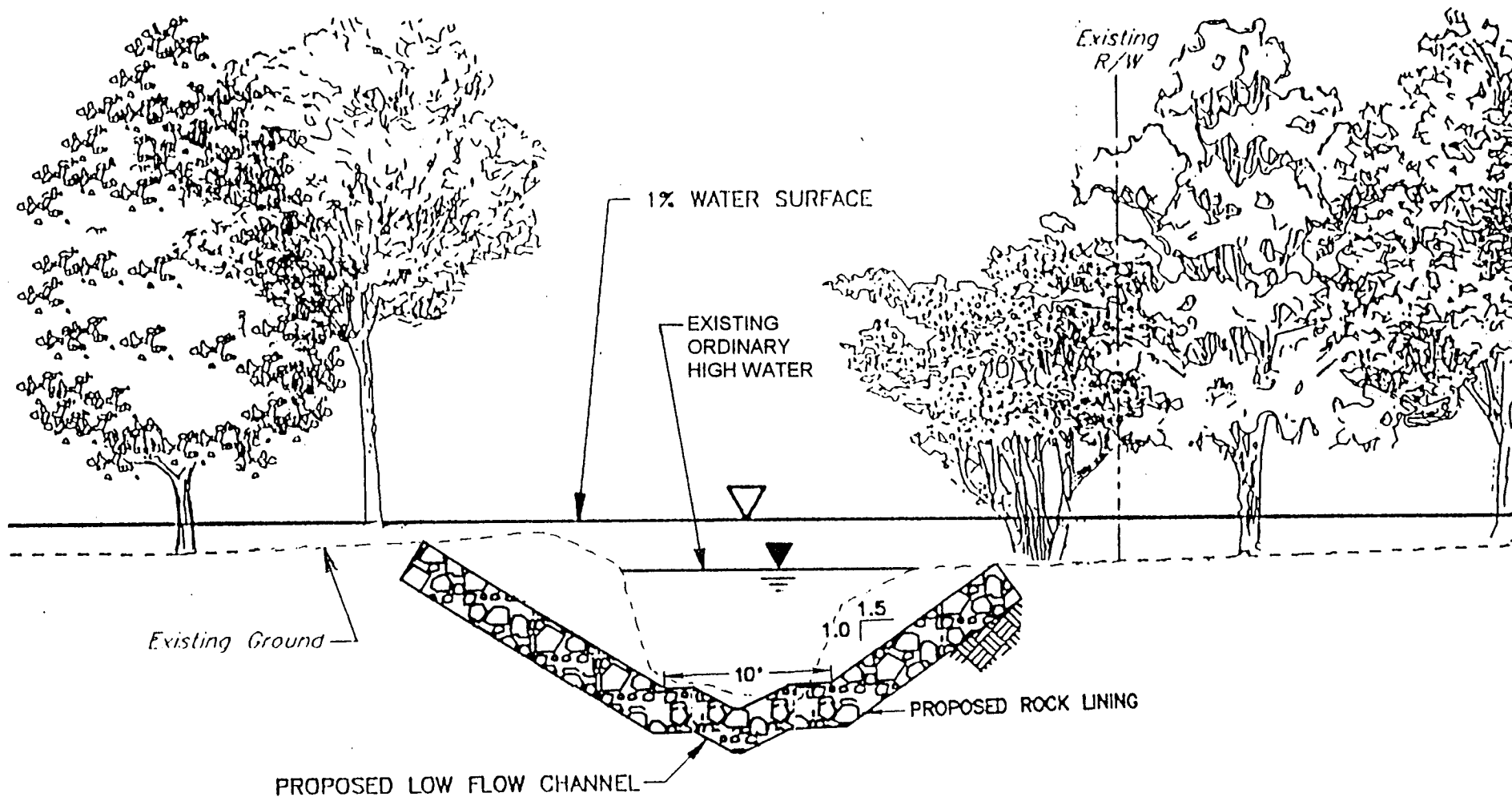
SHEET

S-16

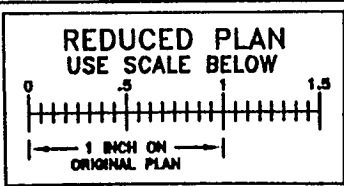
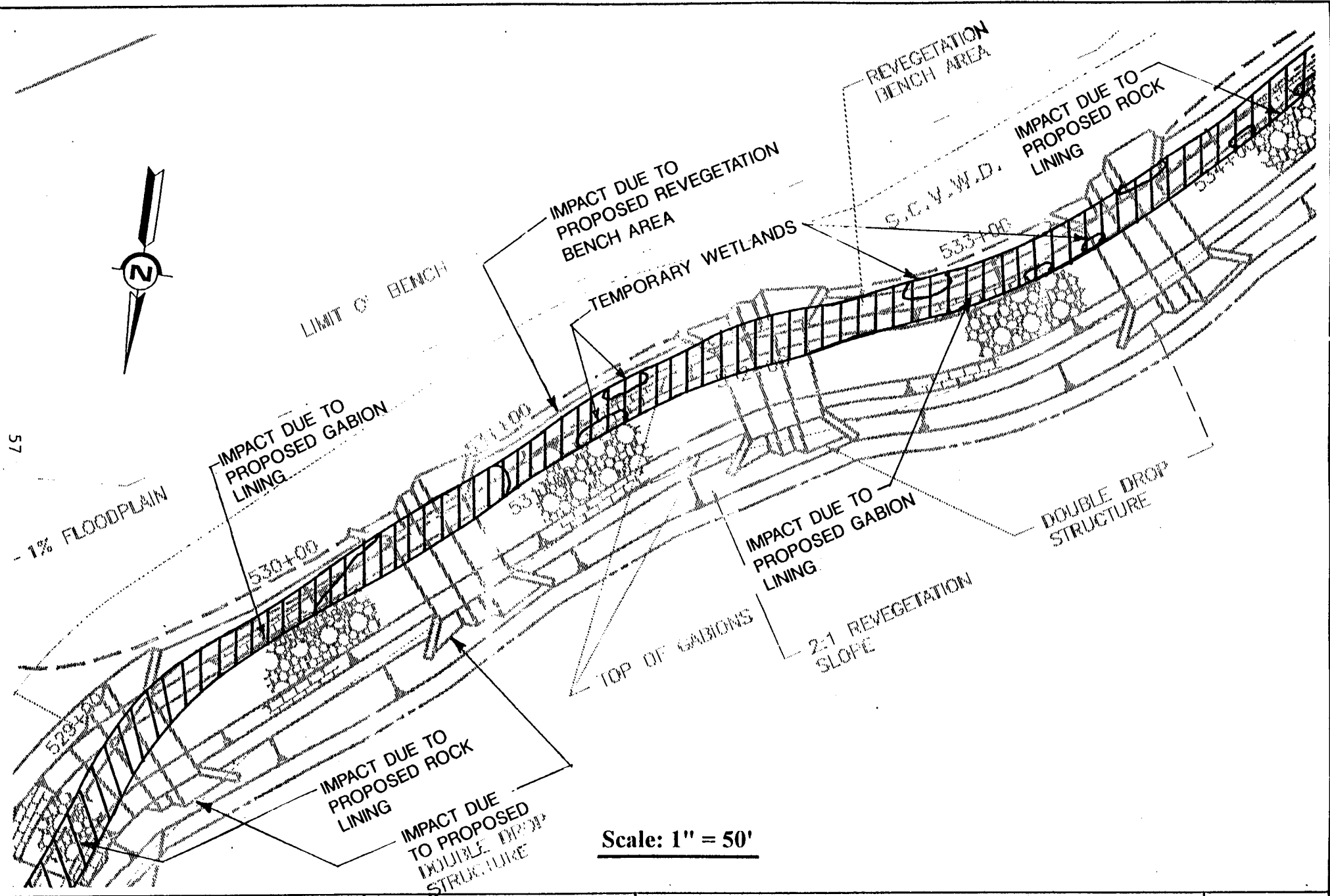
OF 21



TYPICAL SECTION STA 490+65± TO STA 490+85±
NTS



TYPICAL SECTION STA 491+65± TO STA 491+80±
NTS



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

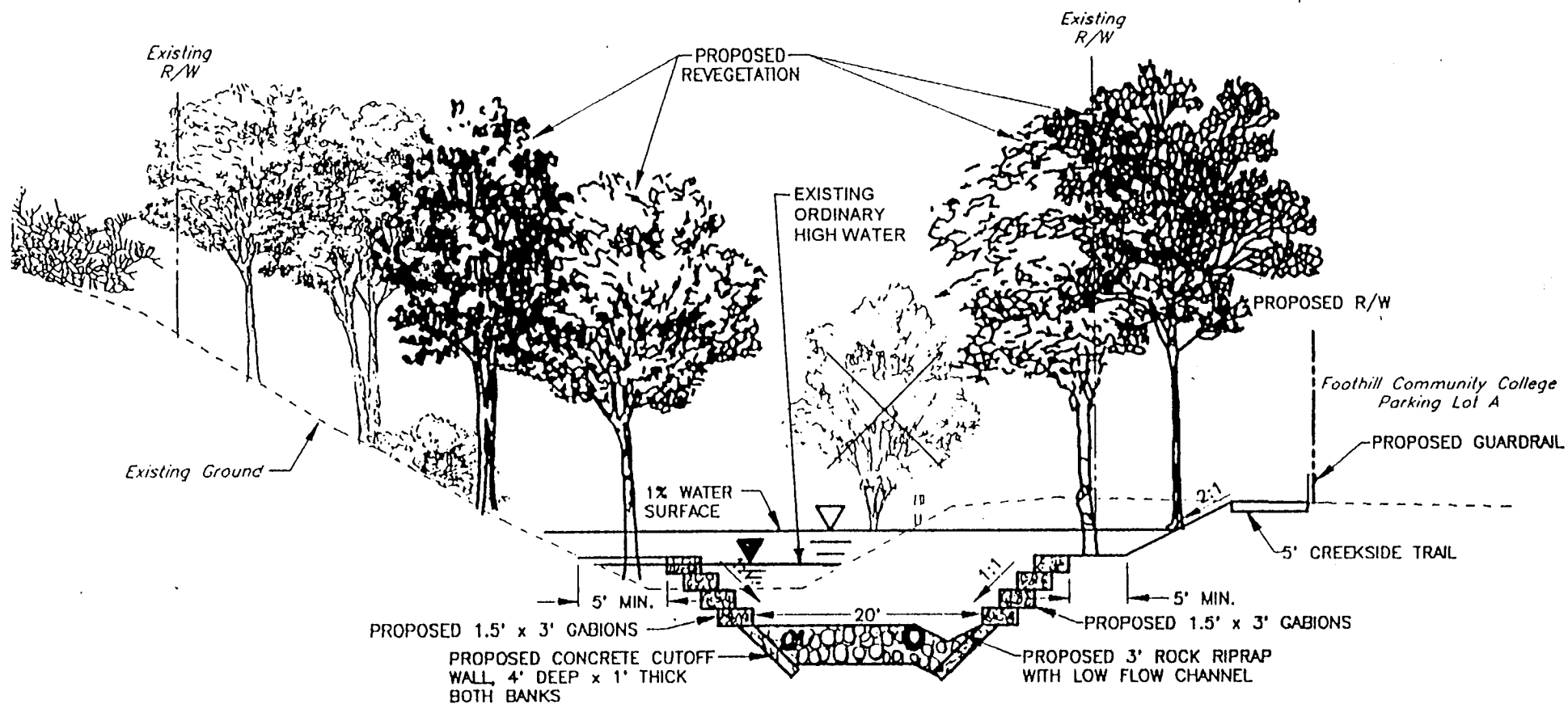
Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

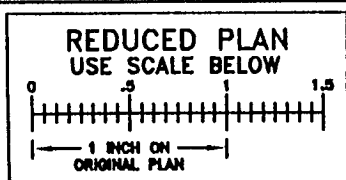
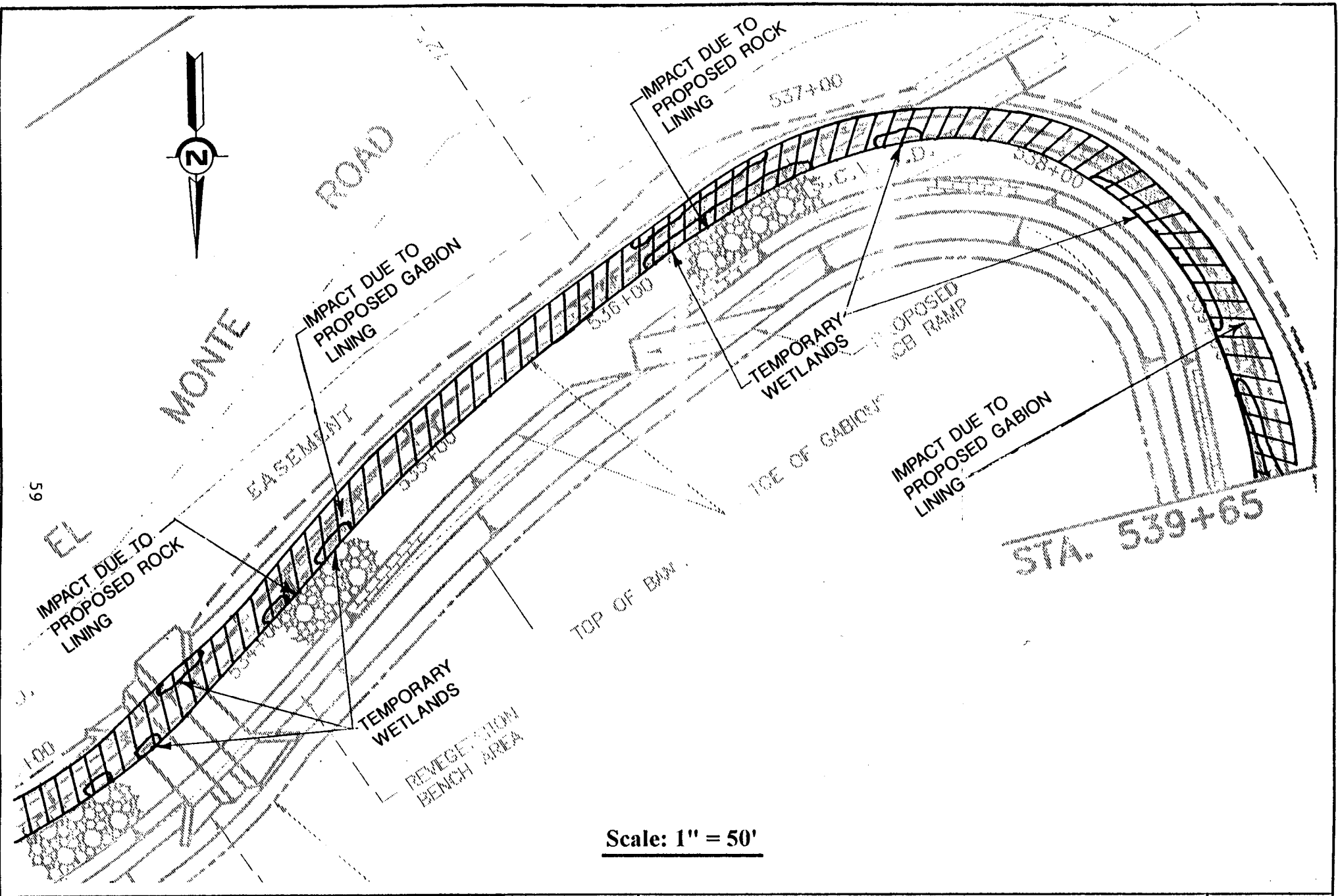
IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE
AS SHOWN

SHEET
S-17
OF 21



TYPICAL SECTION STA 528+45± TO STA 537+60±
NTS



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

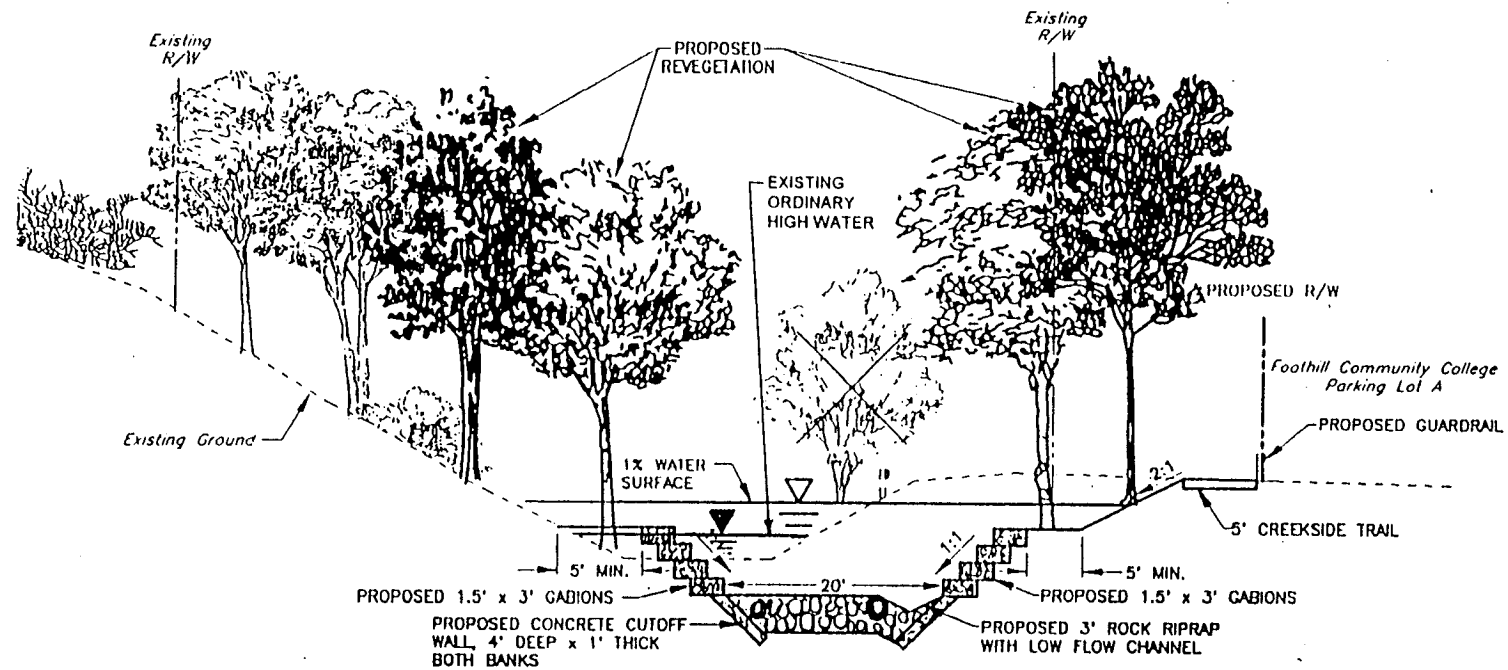
IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE
AS SHOWN

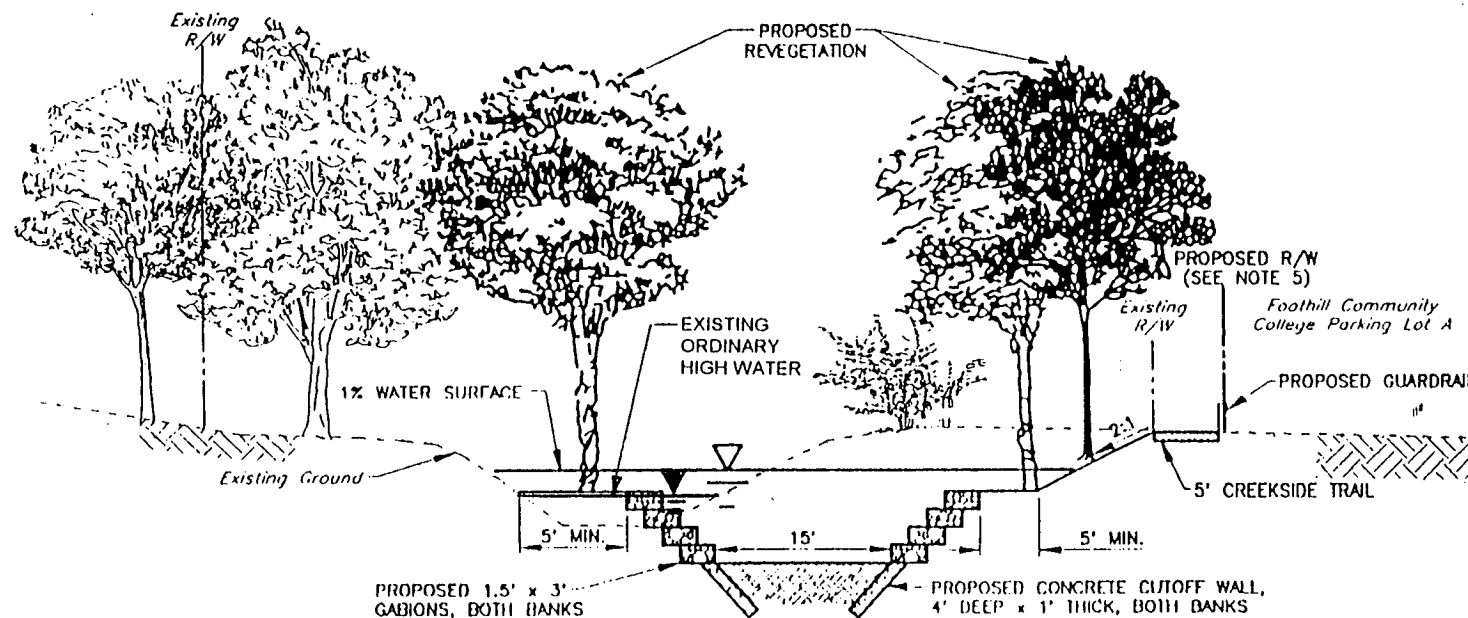
SHEET

S-18

OF 21



TYPICAL SECTION STA 528+45± TO STA 537+60±
NTS



TYPICAL SECTION STA 537+60± TO STA 540+90±
NTS



MONTE ROAD

SHEET 22

PURISSIMA
HILLS COUNTY
WATER DIST.

TEMPORARY
WETLANDS

MATCH LINE

IMPACT DUE TO
PROPOSED GABION
LINING

LIMIT OF BENCH

STA. 539+65

TOP OF BANK

2:1 REVEGETATION
SLOPE

REVEGETATION
BENCH AREA

PROPOSED
EASEMENT

PROPOSED TOE
OF GABIONS

PROPOSED TOP
OF GABIONS

IMPACT DUE TO
PROPOSED DROP
STRUCTURE

PRO
EAS

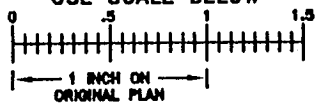
PLAN

SCALE: 1" = 50'

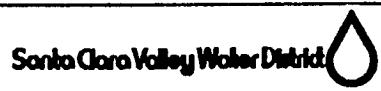
Scale: 1" = 50'

MUNITY
RICT

REDUCED PLAN
USE SCALE BELOW



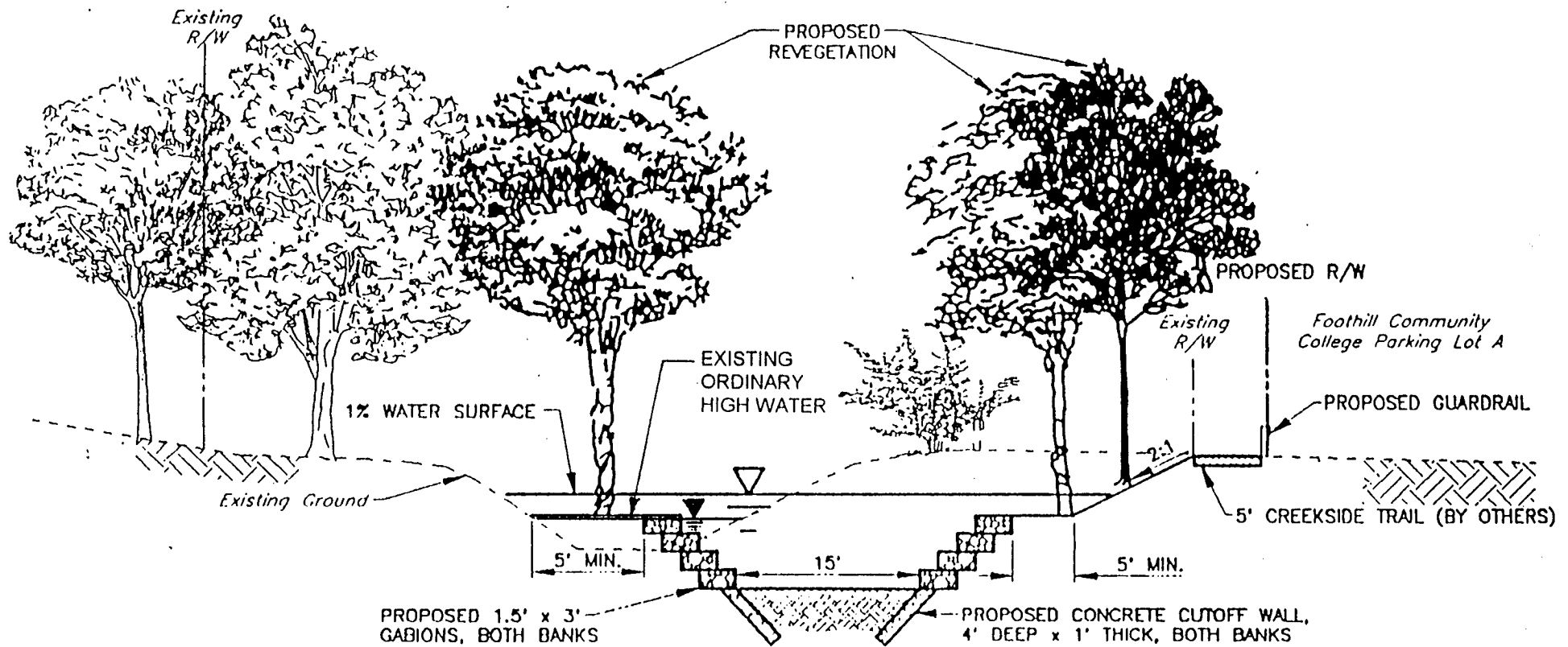
DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW



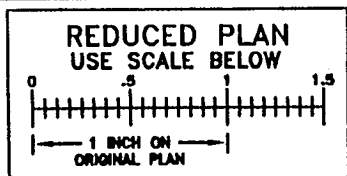
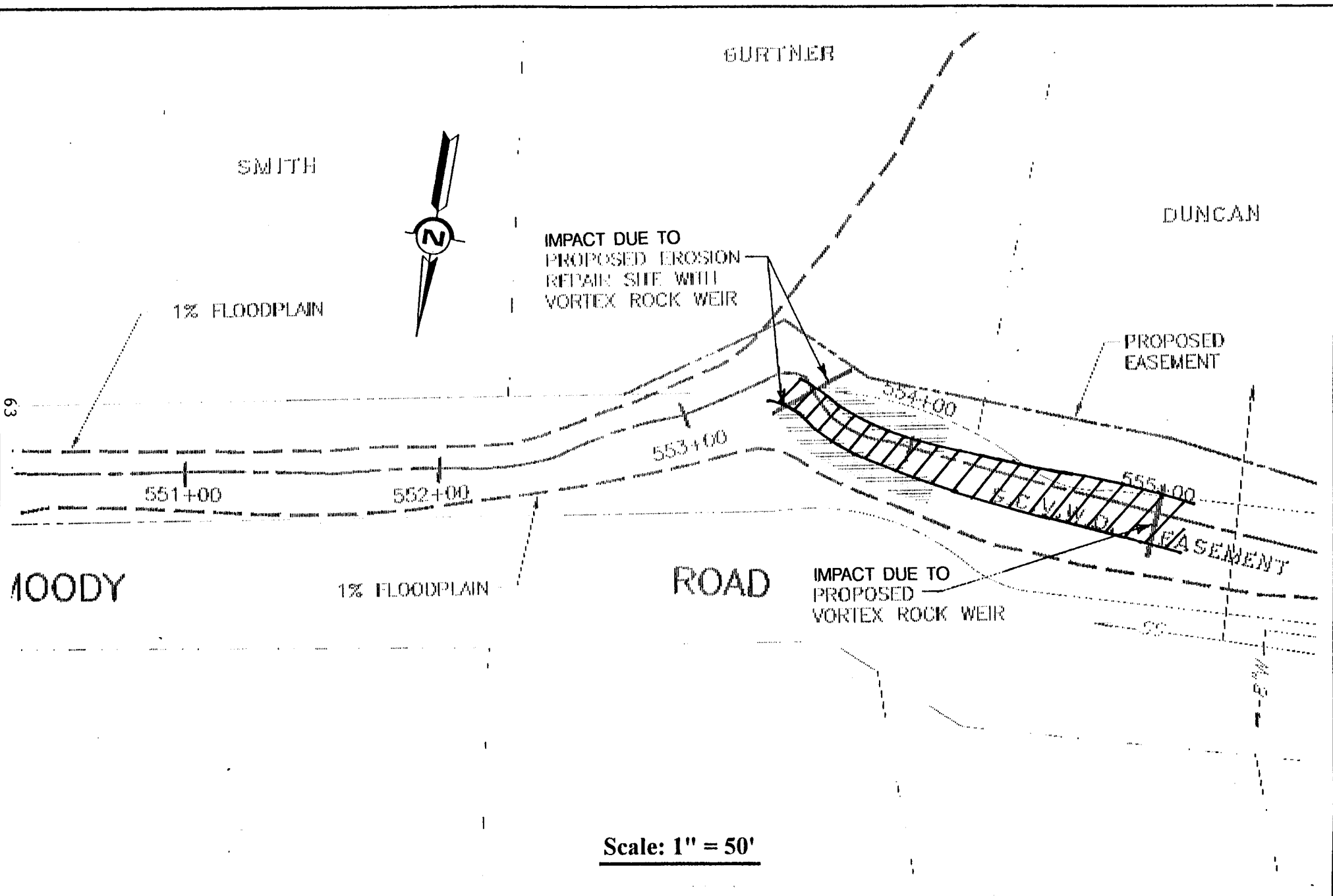
PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE
AS SHOWN
SHEET
S-19
OF 21



TYPICAL SECTION STA 537+60± TO STA 540+90±
NTS

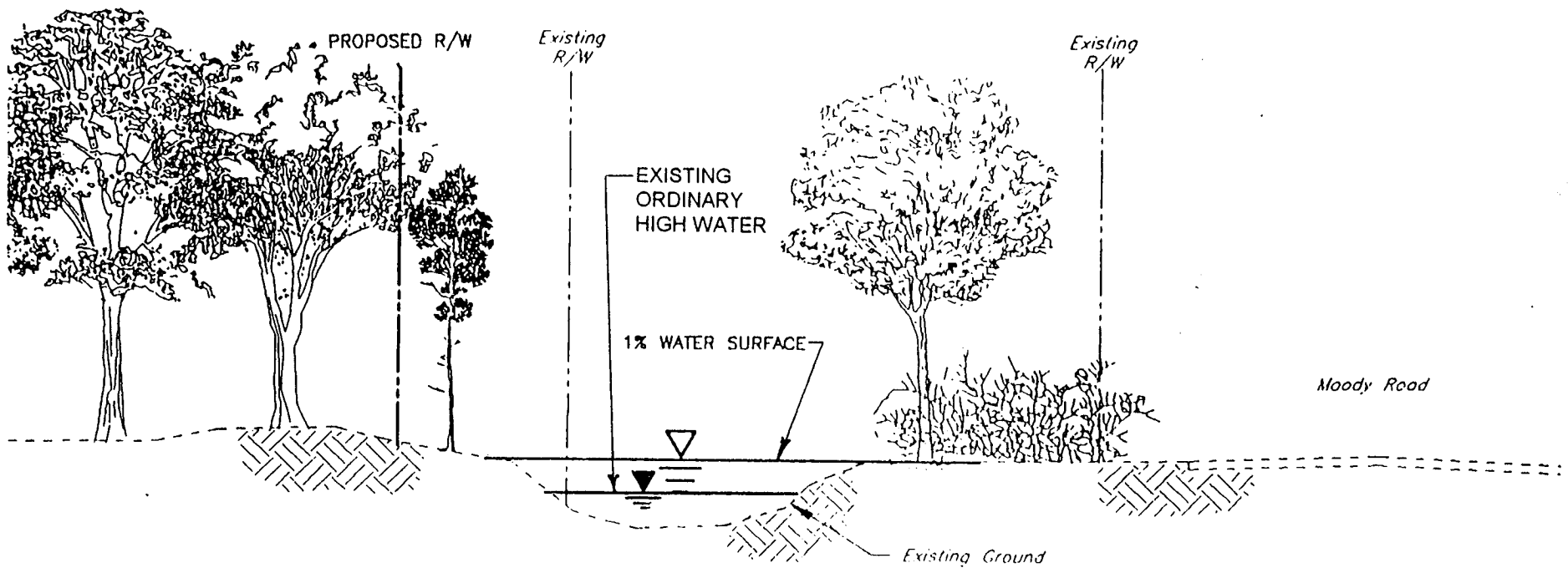


DATE: 2/97	
DESIGN: PS/SS	
DRAWN: SB/TI	
CHECKED: SW	
PROJECT PURPOSE: TO PROVIDE FLOOD PROTECTION AND EROSION REPAIR	

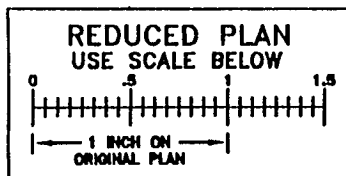
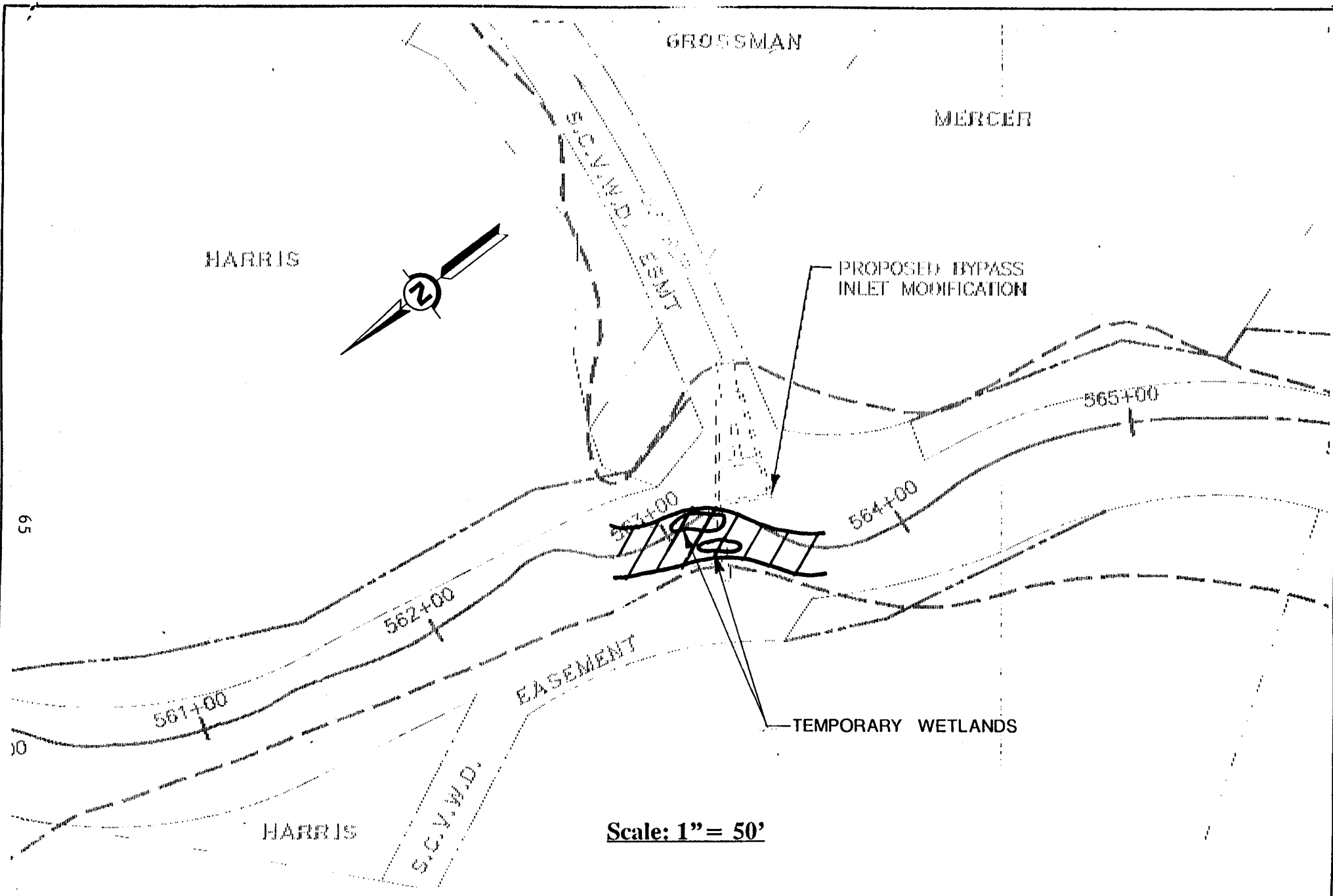
IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE AS SHOWN
SHEET S-20 OF 21

79



TYPICAL SECTION STA 549+00± TO STA 558+00±
NTS



DATE:
2/97
DESIGN:
PS/SS
DRAWN:
SB/TI
CHECKED:
SW

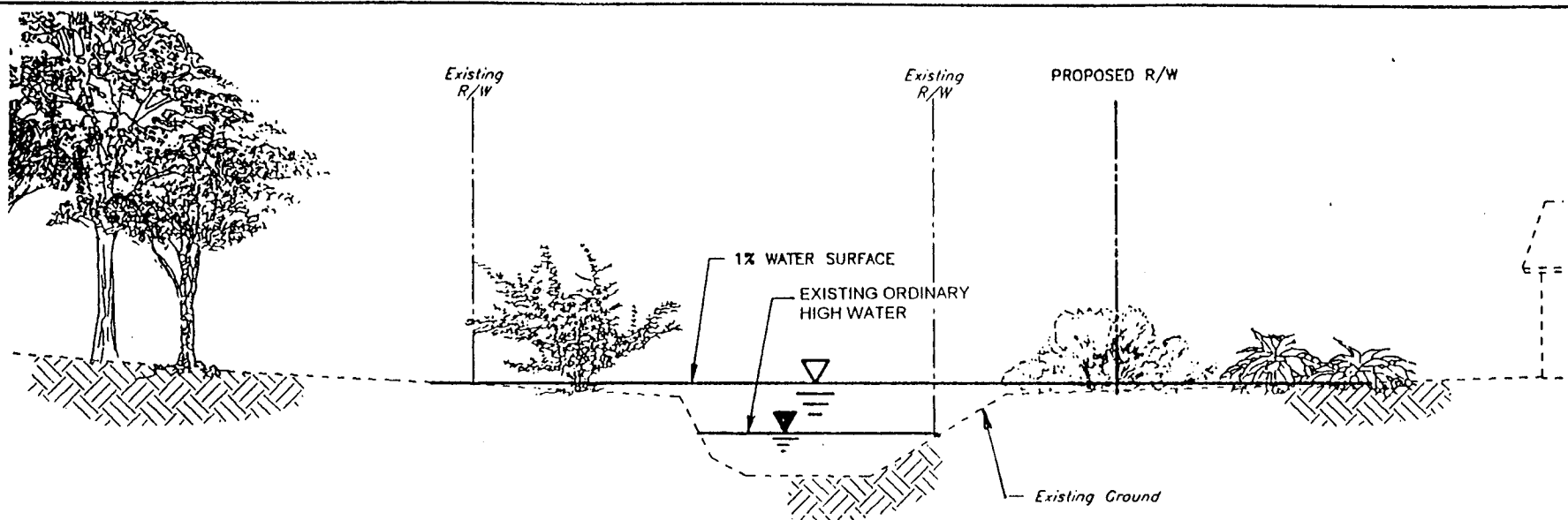
Santa Clara Valley Water District

PROJECT PURPOSE:
TO PROVIDE
FLOOD PROTECTION AND
EROSION REPAIR

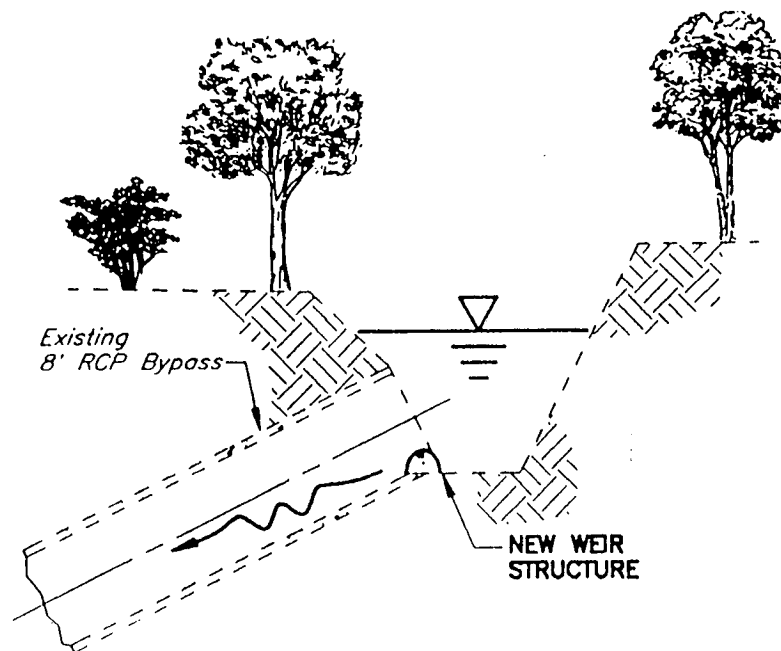
IMPACTS TO EXISTING JURISDICTIONAL
WETLANDS AND ORDINARY HIGH WATER
FROM PROPOSED CHANNEL MODIFICATIONS
IN ADOBE CREEK

SCALE
AS SHOWN

SHEET
S-21
OF 21







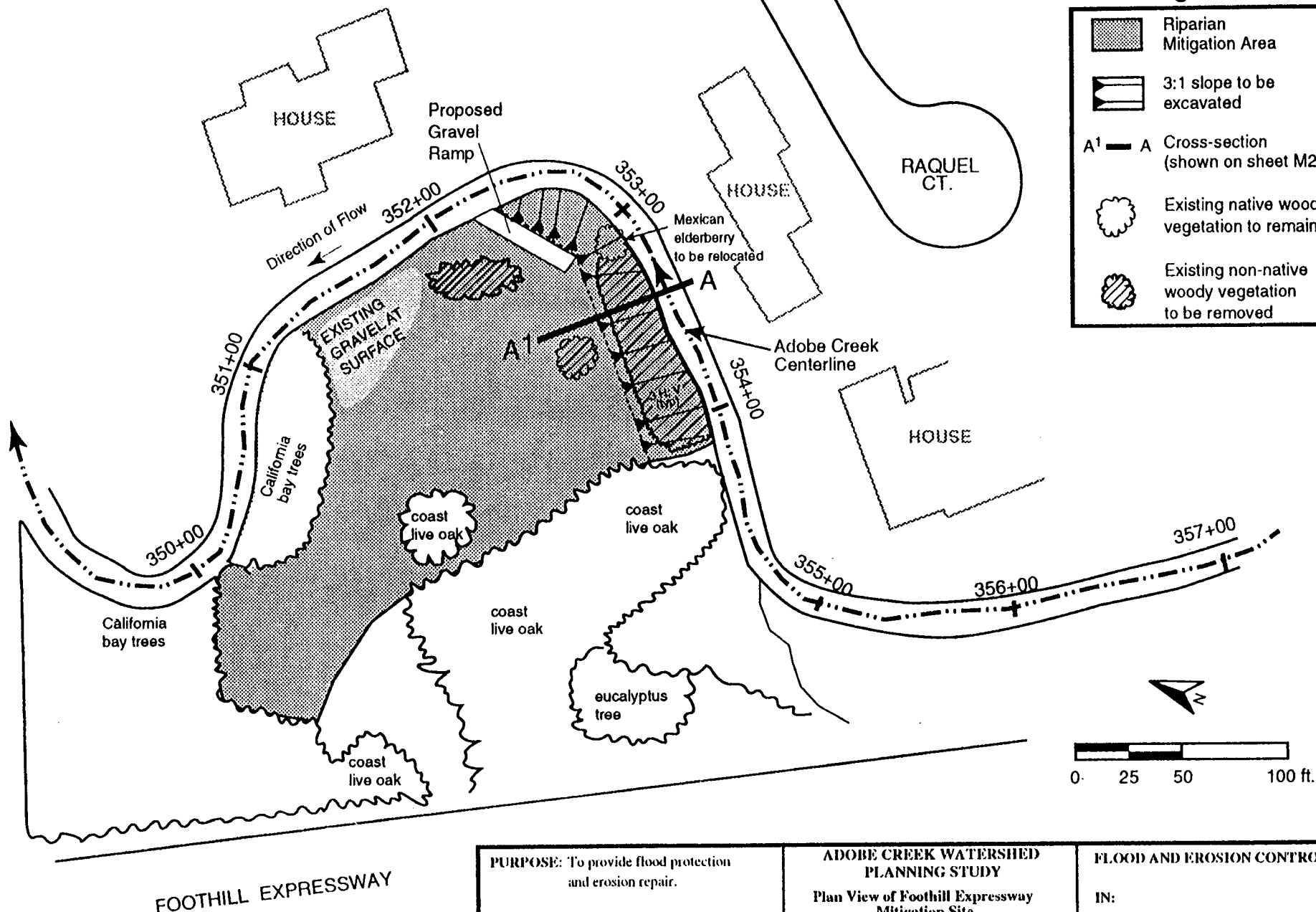
TYPICAL SECTION STA 563+45± TO STA 570+50±
NTS



BYPASS ENTRANCE STRUCTURE MODIFICATION STA 563+30±
NTS

Legend:

-  Riparian Mitigation Area
-  3:1 slope to be excavated
- A1 — A Cross-section (shown on sheet M2)
-  Existing native woody vegetation to remain
-  Existing non-native woody vegetation to be removed



PURPOSE: To provide flood protection and erosion repair.

DATUM: NGVD 1929

**ADOBE CREEK WATERSHED
PLANNING STUDY**

**Plan View of Foothill Expressway
Mitigation Site**

SCALE: as shown

APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

IN:

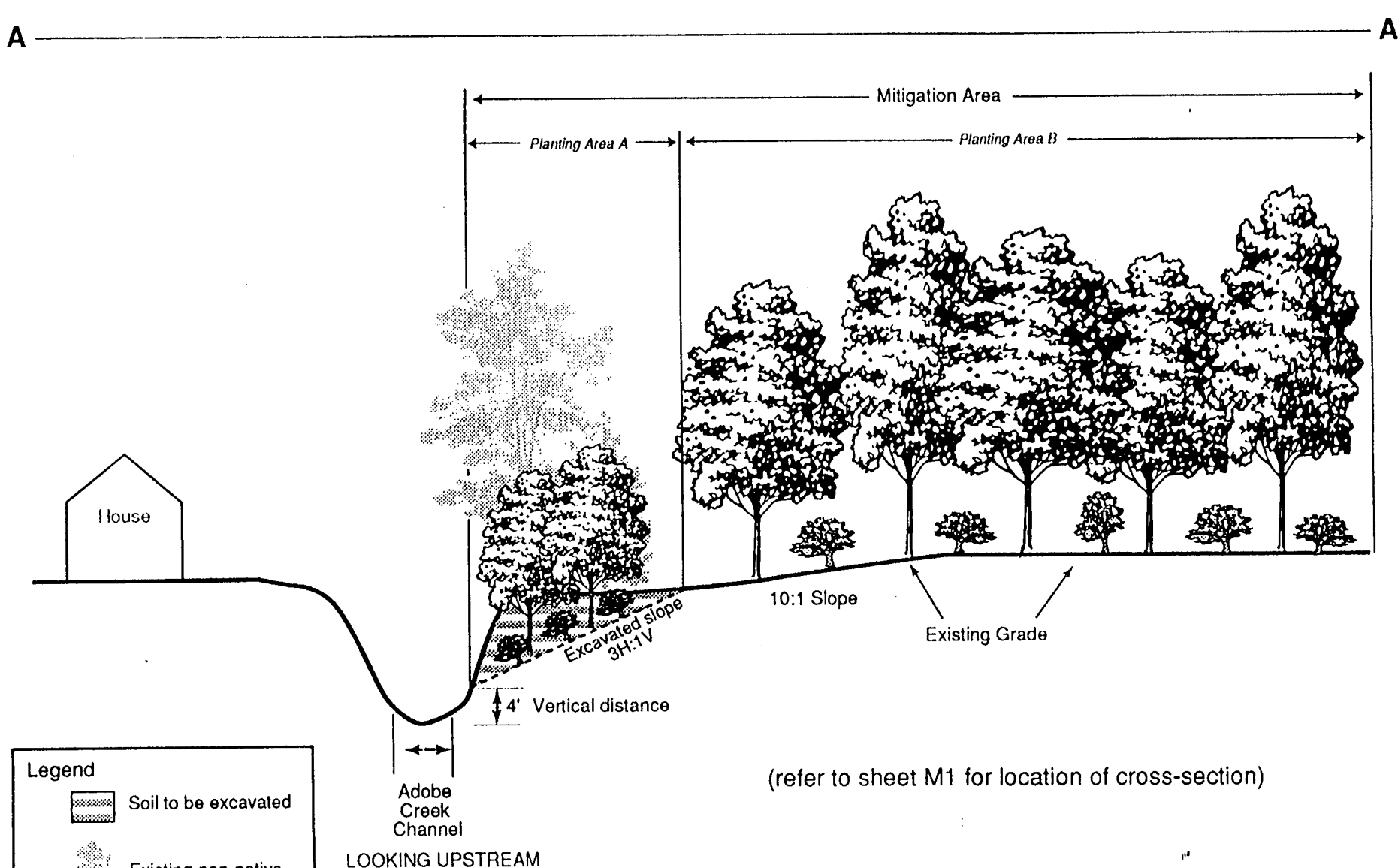
AT:

COUNTY OF: Santa Clara

STATE: California

APPLICATION BY: SCVWD

Sheet M1 of 12 **DATE:** SEPTEMBER 1997



Legend



Soil to be excavated



Existing non-native trees to be removed



Native trees and shrubs to be installed

(not to scale)

PURPOSE: To provide flood protection and erosion repair.

DATUM: NGVD 1929

ADOBE CREEK WATERSHED PLANNING STUDY
Cross-Section of Foothill Expressway Mitigation Site

SCALE: no scale

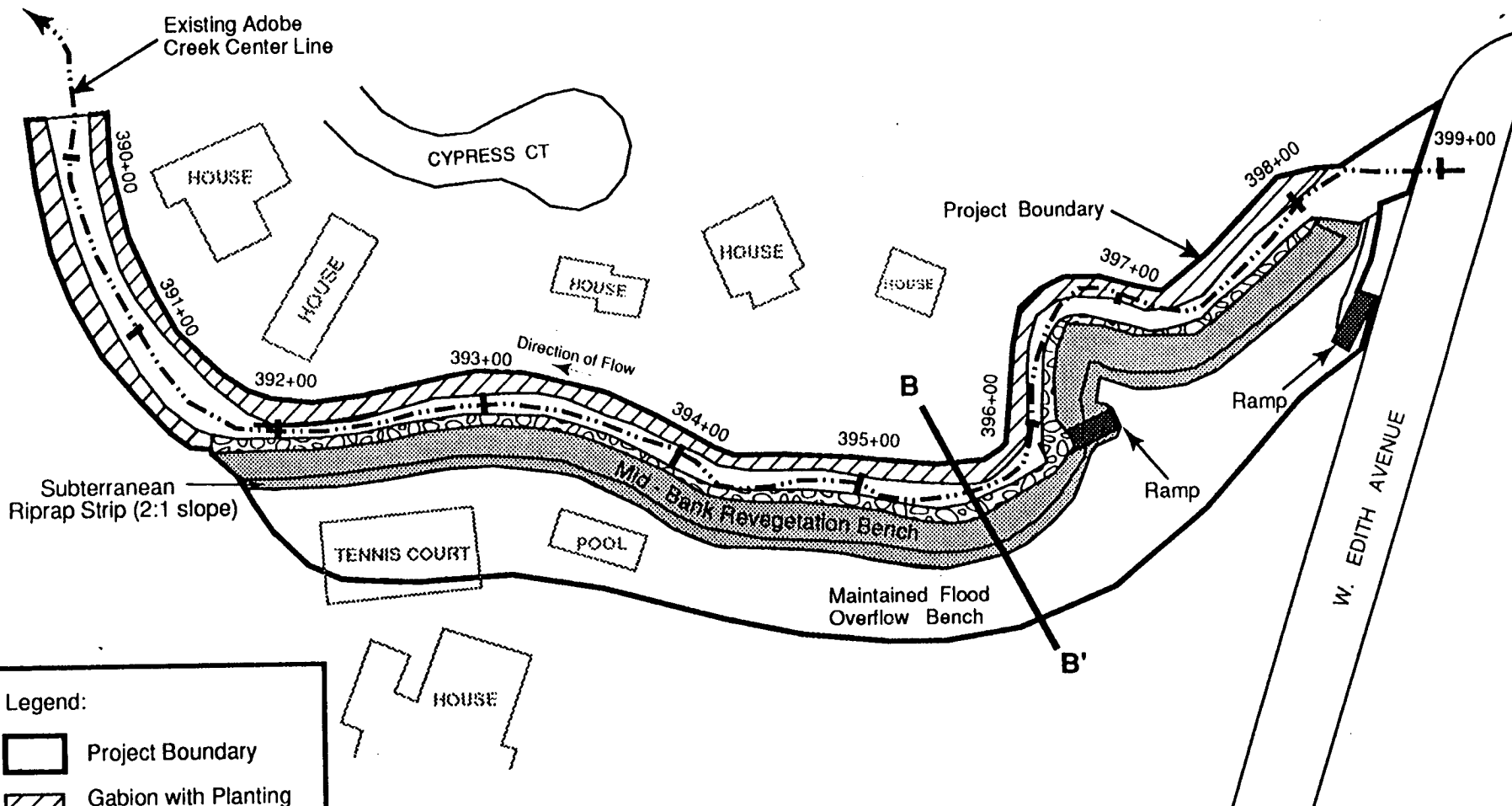
APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686





FLOOD AND EROSION CONTROL

IN:
AT:
COUNTY OF: Santa Clara
STATE: California

APPLICATION BY: SCVWD
Sheet M2 of 12 DATE: SEPTEMBER 1997

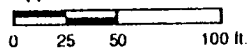


Legend:

-  Project Boundary
-  Gabion with Planting Pockets
-  2:1 Rock Riprap Slope
-  Riparian Mitigation Area
- B1—B** Cross-section (shown on sheet M4)



Approx. Scale:



PURPOSE: To provide flood protection and erosion repair.

DATUM: NGVD 1929

ADOBE CREEK WATERSHIED PLANNING STUDY

Plan View of West Edith Avenue

Channel Modification
SCALE: as shown

APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

IN:

AT:

COUNTY OF: Santa Clara

STATE: California

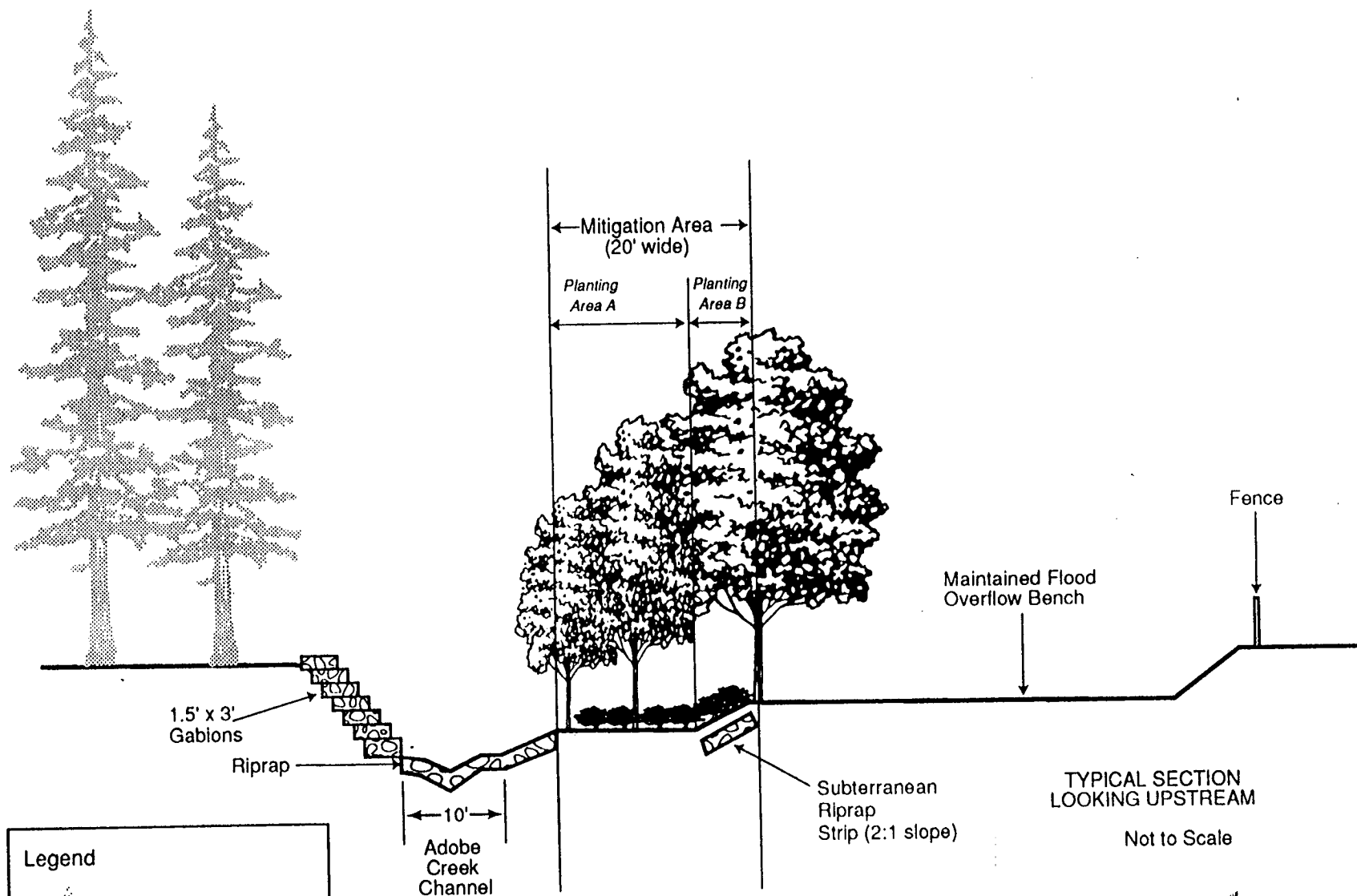
APPLICATION BY: SCVWD

Sheet M3 of 12 DATE: SEPTEMBER 1997

B

B'

70



Legend



Existing trees to remain

Native trees and shrubs
to be installed

PURPOSE: To provide flood protection
and erosion repair.

DATUM: NGVD 1929

**ADOBE CREEK WATERSHED
PLANNING STUDY**
Cross-Section of West Edith Avenue
Channel Modification Mitigation Site

SCALE:

APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

IN:
AT:

COUNTY OF: Santa Clara
STATE: California

APPLICATION BY: SCVWD
Sheet M4 of 12 DATE: SEPTEMBER 1997

PURPOSE: To provide flood protection and erosion repair.

DATUM: NGVD 1929

ADOBE CREEK WATERSHED
PLANNING STUDY

Plan View of West Edith Avenue
Park Mitigation Site

SCALE: as shown

APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

IN:

AT:

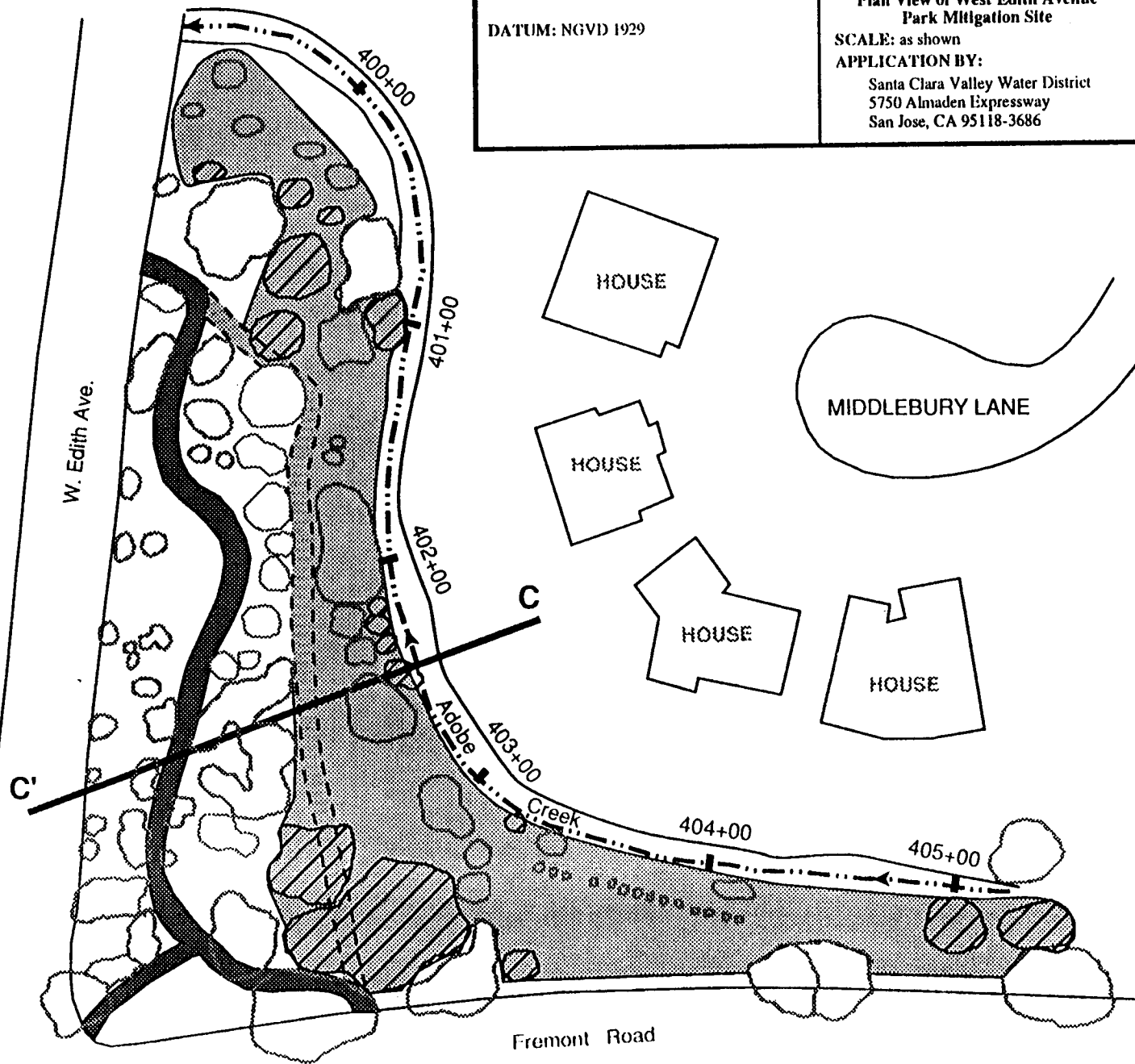
COUNTY OF: Santa Clara

STATE: California

APPLICATION BY: SCVWD

Sheet M5 of 12 DATE: SEPTEMBER 1997

17



Legend:

Potential Mitigation Areas

Trail to be Removed and Planted

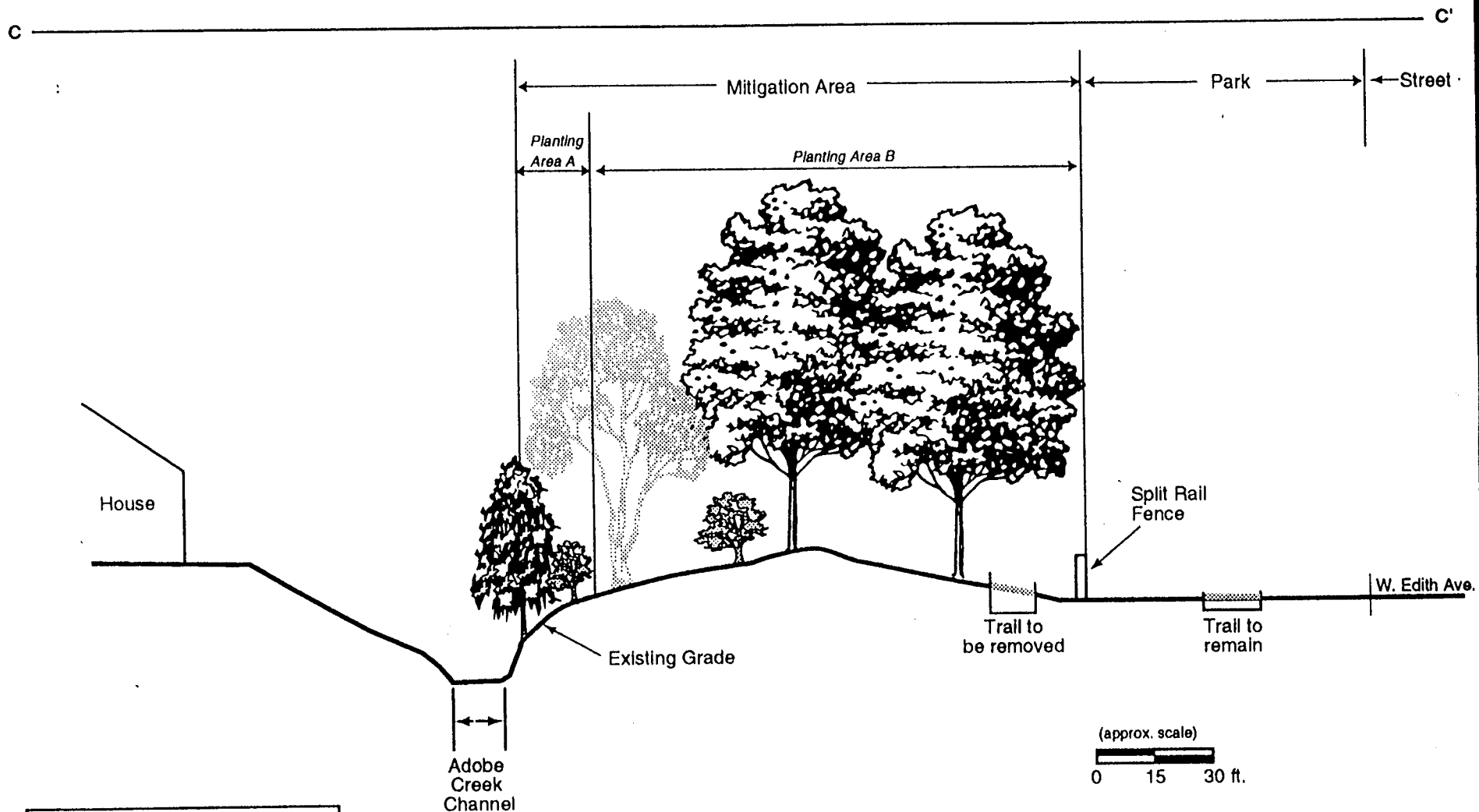
Existing Trail to Remain

Non-native Vegetation to be Removed

Existing Vegetation to Remain

404+00 Creek Channel with Station #s

C1-C Cross-section (shown on sheet M6)



Legend



Non-native trees
to be removed



Native trees and shrubs
to be installed

TYPICAL SECTION
LOOKING UPSTREAM

PURPOSE: To provide flood protection
and erosion repair.

DATUM: NGVD 1929

ADOBE CREEK WATERSHED PLANNING STUDY

Cross-Section of West Edith Avenue
Park Mitigation Site

SCALE: as shown
APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

IN:
AT:
COUNTY OF: Santa Clara
STATE: California

APPLICATION BY: SCVWD
Sheet M6 of 12 **DATE:** SEPTEMBER 1997

Legend:



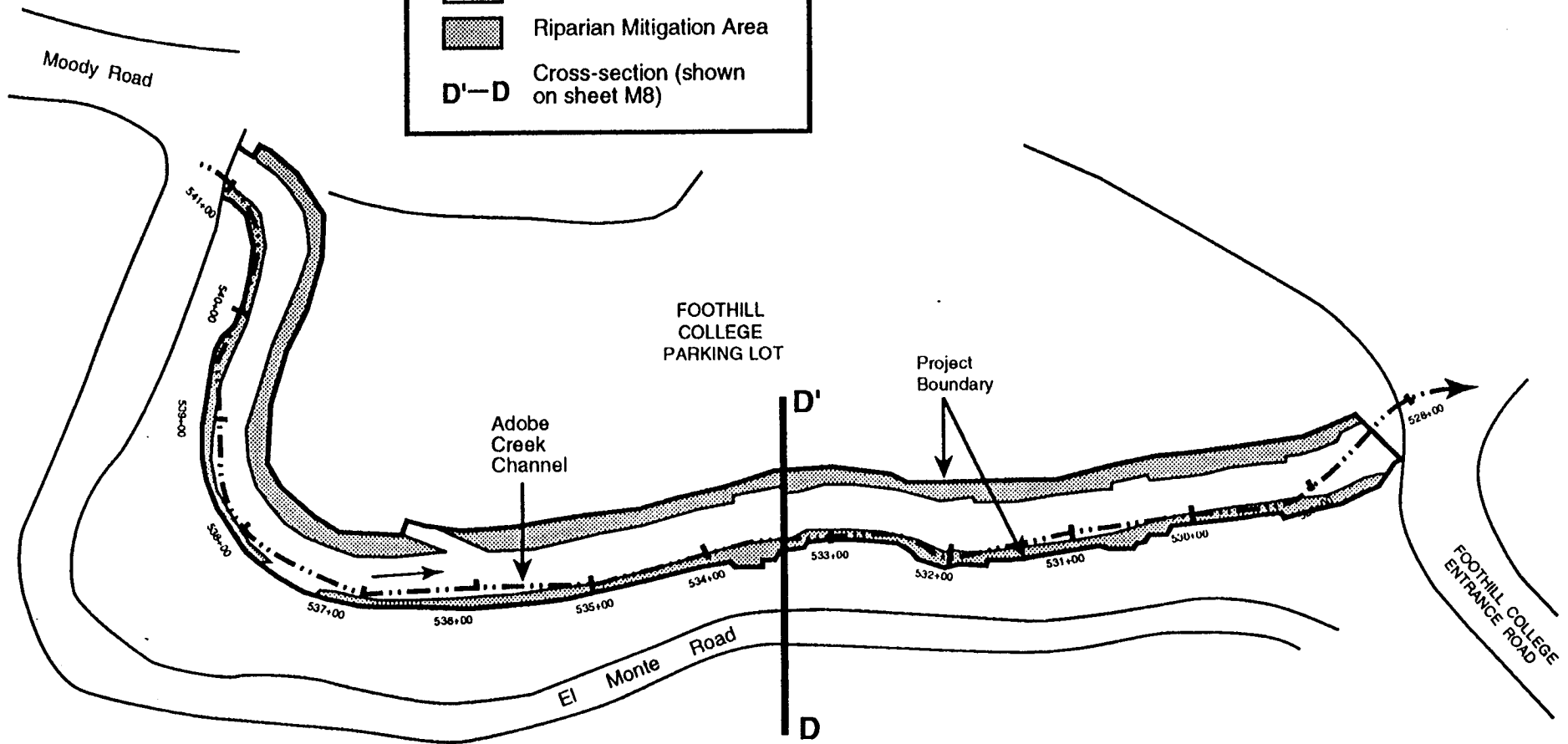
Project Boundary



Riparian Mitigation Area

D'—D

Cross-section (shown
on sheet M8)



PURPOSE: To provide flood protection
and erosion repair.

DATUM: NGVD 1929

**ADOBE CREEKWATERSHED
PLANNING STUDY**
Plan View of Foothill College
Mitigation Site

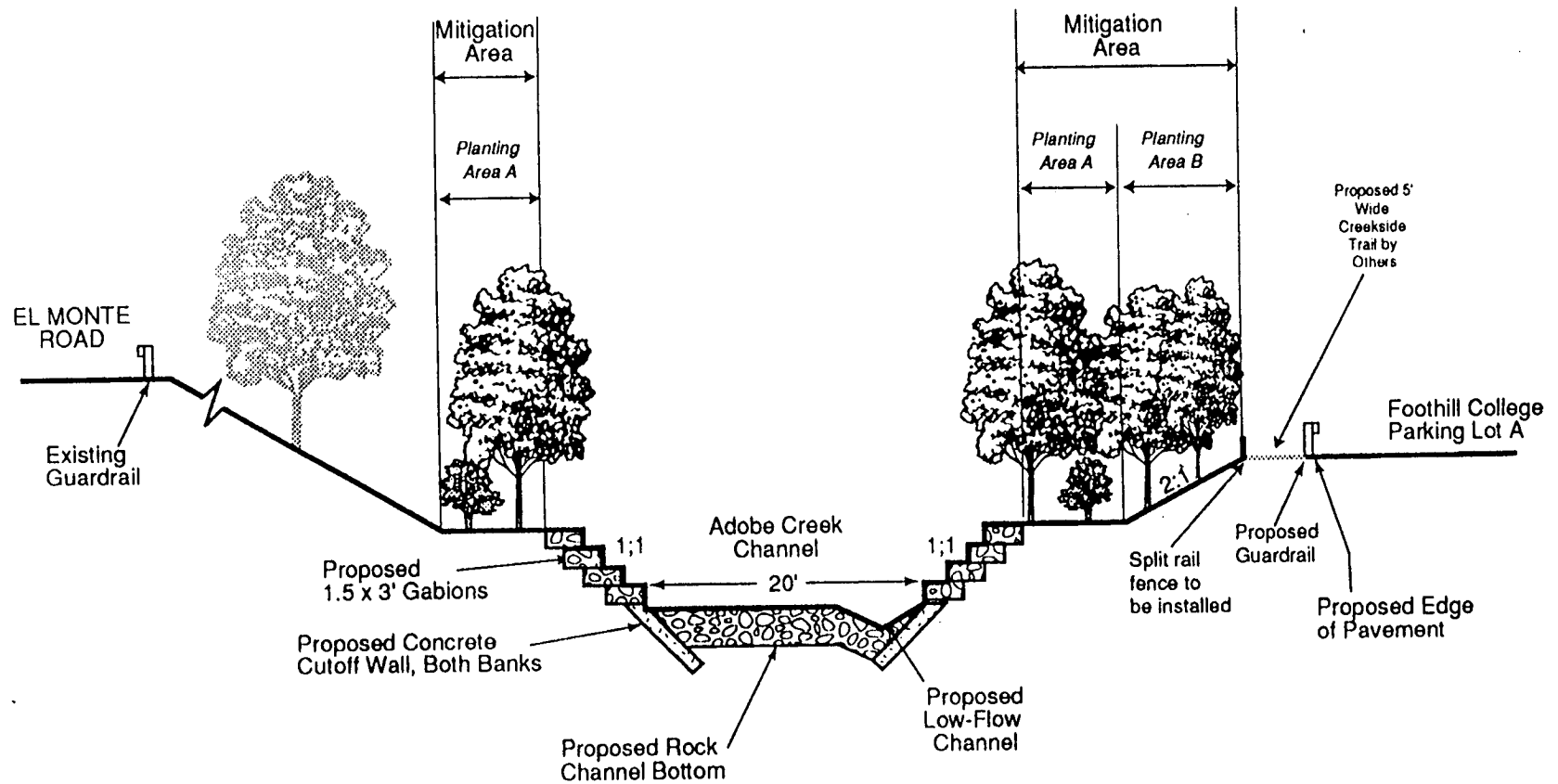
SCALE: as shown
APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

IN:
AT:
COUNTY OF: Santa Clara
STATE: California

APPLICATION BY: SCVWD
Sheet M7 of 12 **DATE:** SEPTEMBER 1997



Legend



Existing non-native
trees to remain



Native trees and
shrubs to be installed

TYPICAL SECTION LOOKING UPSTREAM

(not to scale)

PURPOSE: To provide flood protection
and erosion repair.

DATUM: NGVD 1929

ADJACENT PROPERTY:
OWNERS: See attached listing

**ADOBE CREEK WATERSHED
PLANNING STUDY**
Cross-Section of Foothill College Channel
Modification Mitigation Site

SCALE: no scale

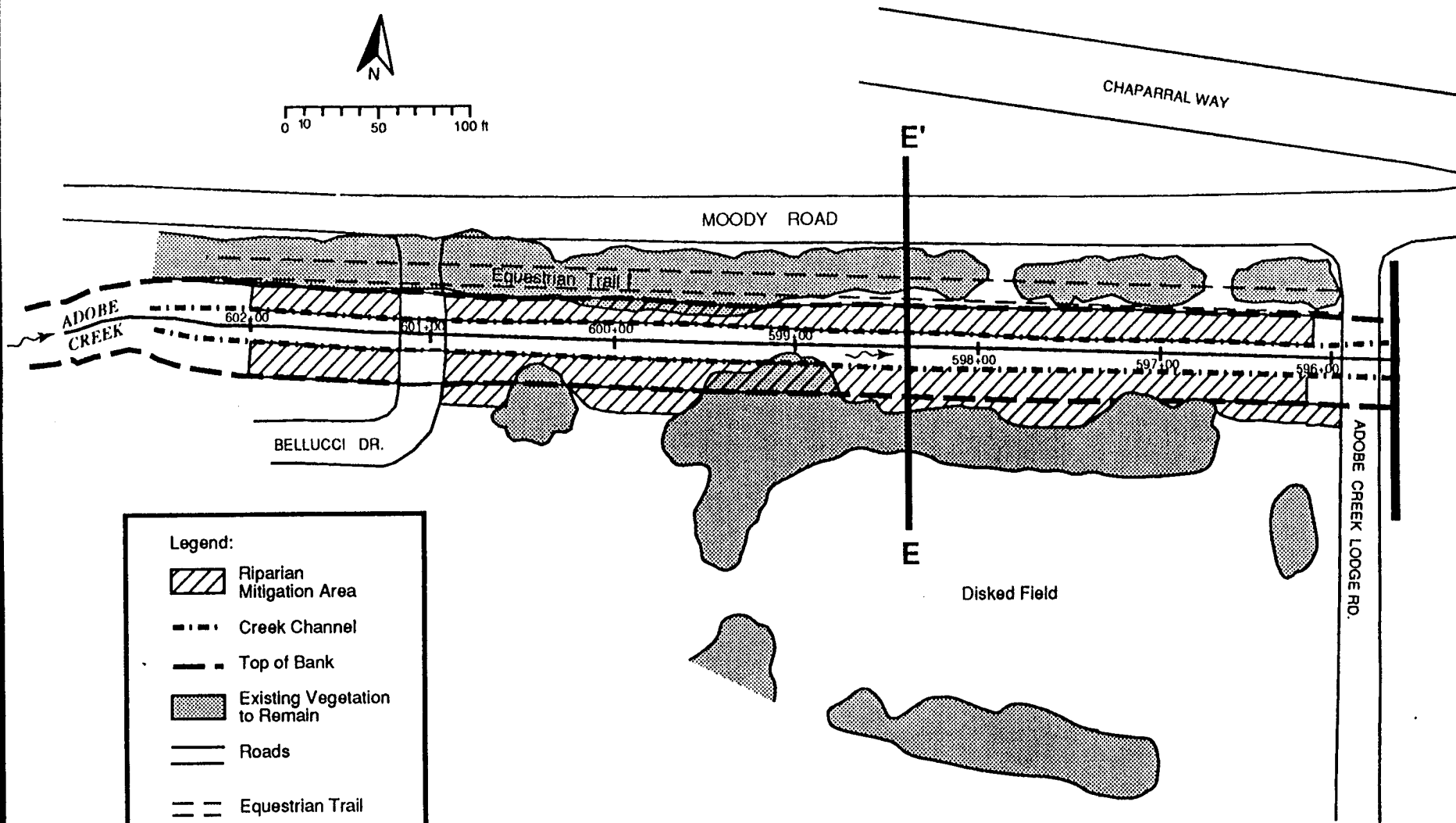
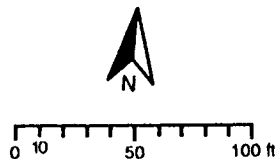
APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

IN:
AT:
COUNTY OF: Santa Clara
STATE: California

APPLICATION BY: SCVWD
Sheet M8 of 12 **DATE:** SEPTEMBER 1997



Legend:

Riparian Mitigation Area

Creek Channel

Top of Bank

Existing Vegetation to Remain

Roads

Equestrian Trail

E'-E Cross-section (shown on sheet M10)

PURPOSE: To provide flood protection and erosion repair.

DATUM: NGVD 1929

ADOBE CREEK WATERSHED PLANNING STUDY
Plan View of Adobe Creek Estates Mitigation Site

SCALE:

APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

IN:

AT:

COUNTY OF: Santa Clara

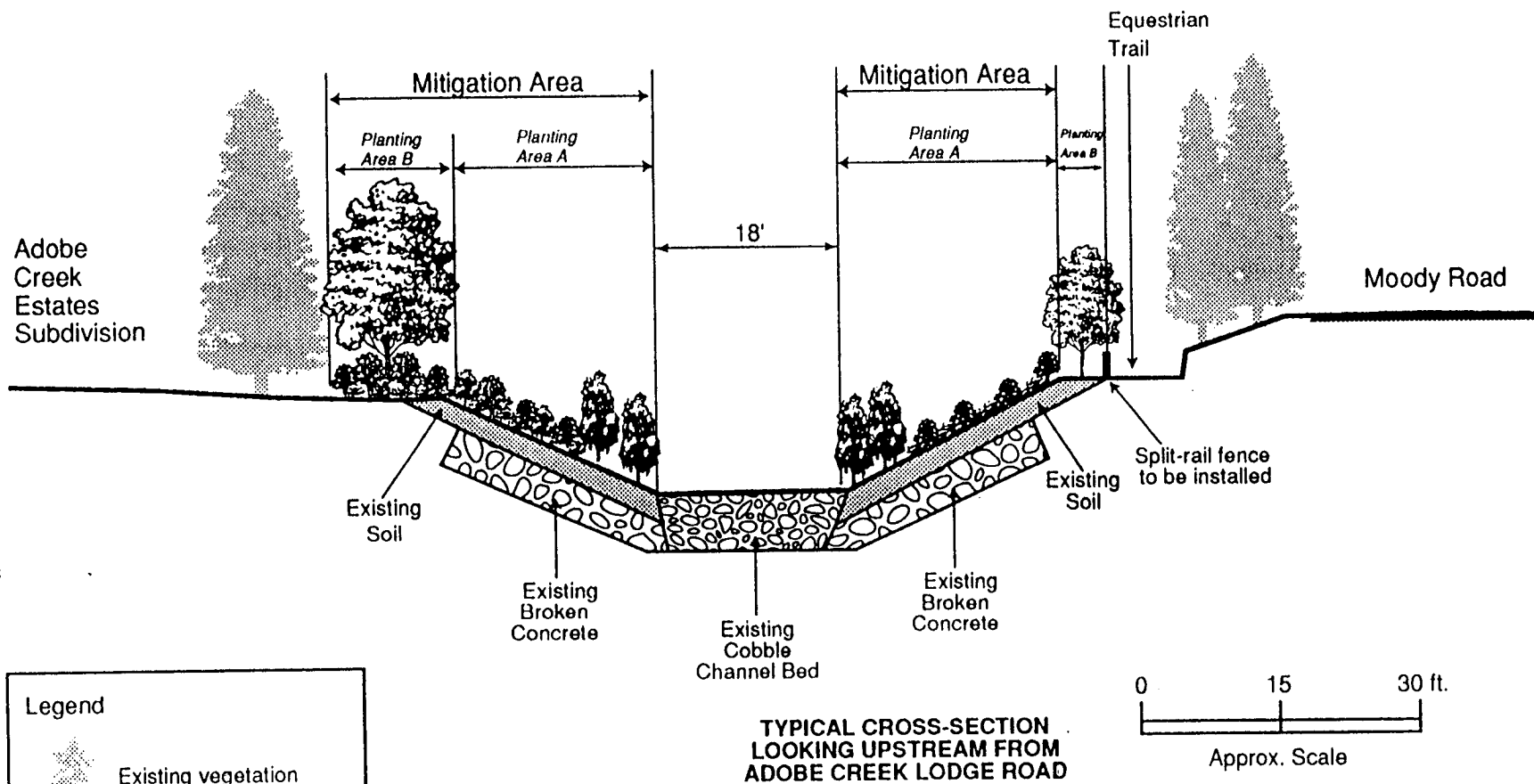
STATE: California

APPLICATION BY: SCVWD

Sheet M9 of 12 DATE: SEPTEMBER 1997

E

E'



Legend



Existing vegetation
to remain



Native trees and shrubs
to be installed

PURPOSE: To provide flood protection
and erosion repair.

DATUM: NGVD 1929

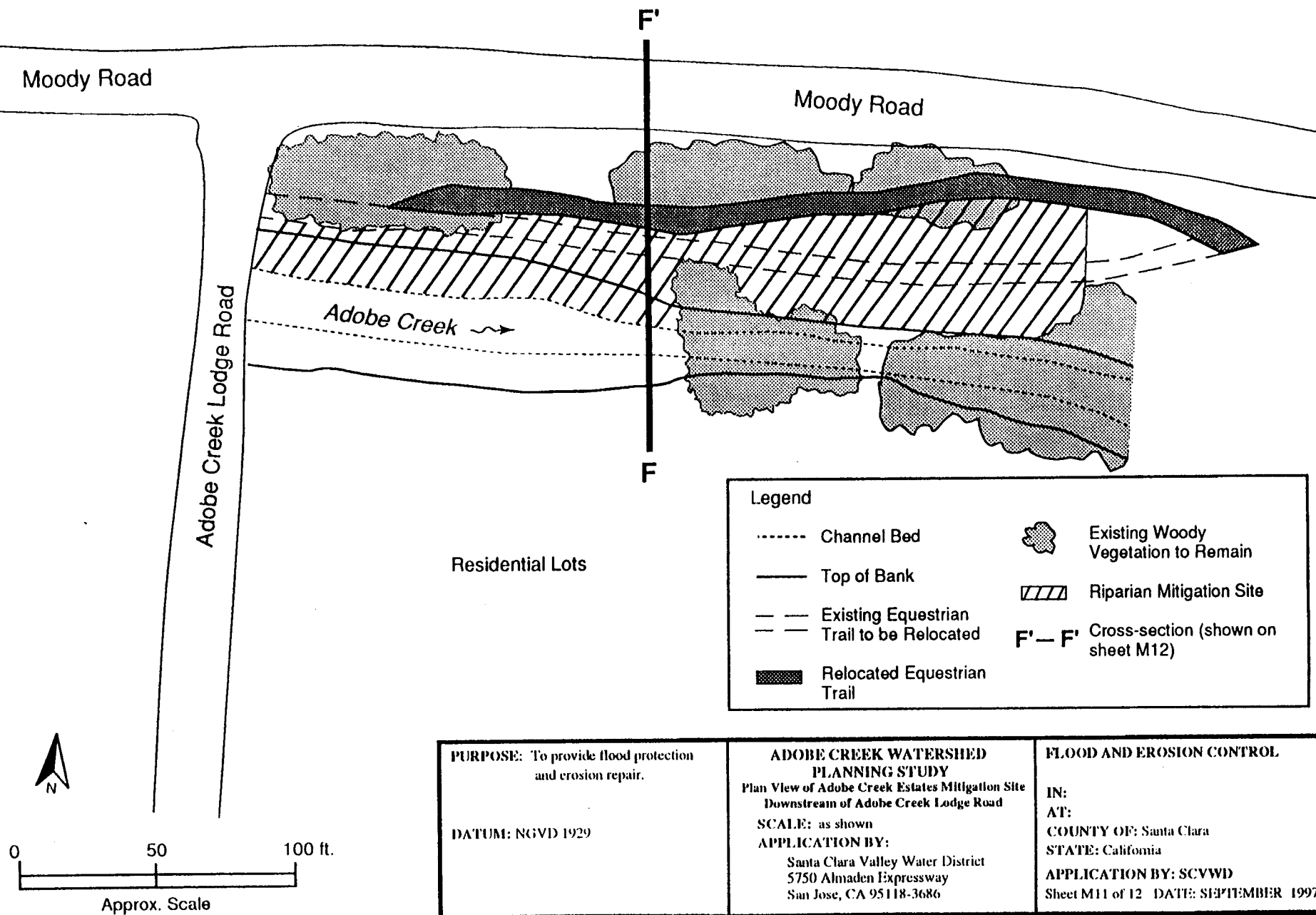
**ADOBE CREEK WATERSHED
PLANNING STUDY**
Adobe Creek Estates Mitigation Site
Upstream of Adobe Creek Lodge Road
SCALE: as shown
APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

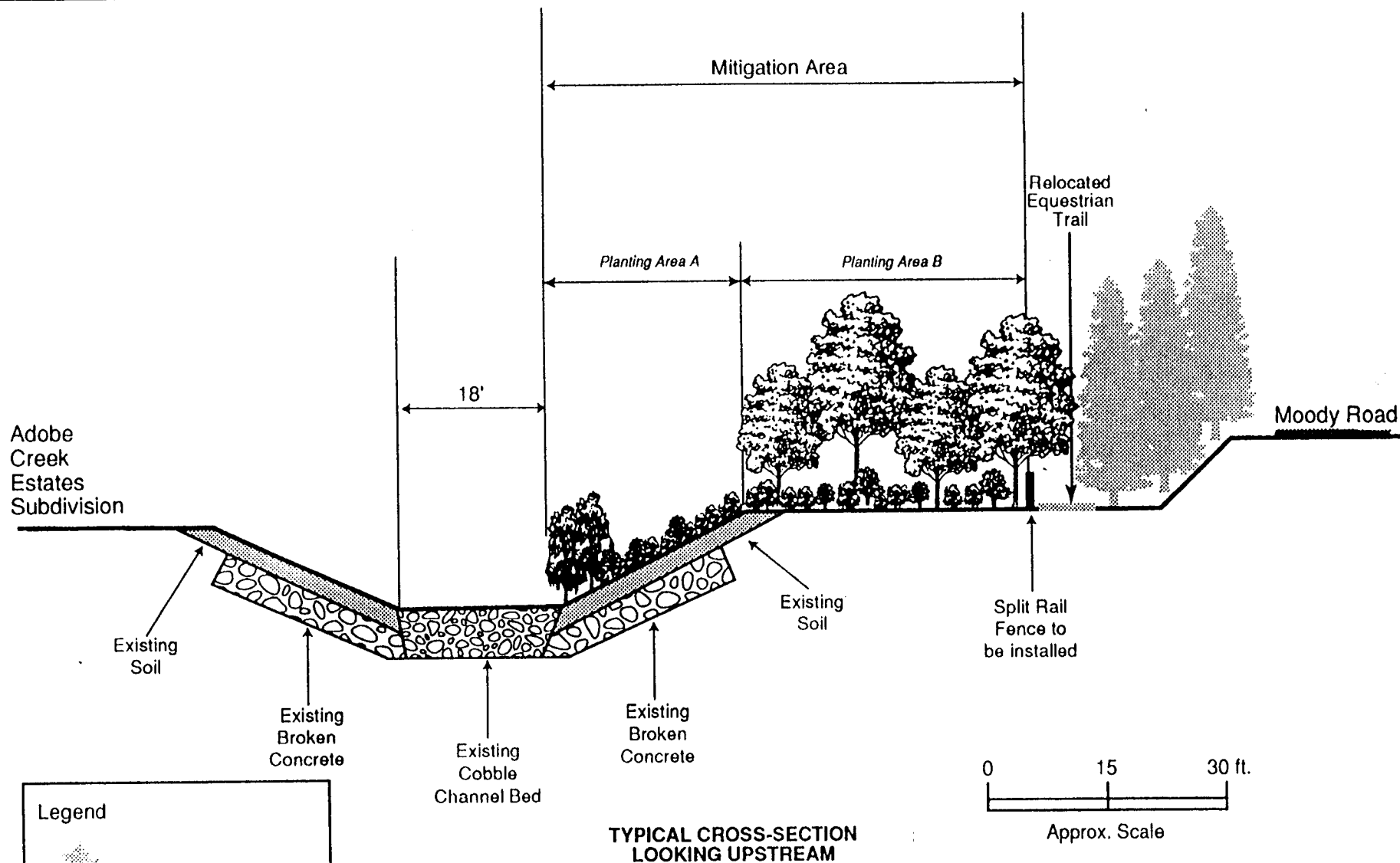
IN:
AT:
COUNTY OF: Santa Clara: CA
STATE: California

APPLICATION BY: SCVWD
Sheet M10 of 12 DATE: SEPTEMBER 1997



F

F'



Legend



Existing ornamental
trees to remain



Native trees and shrubs
to be installed

TYPICAL CROSS-SECTION LOOKING UPSTREAM

PURPOSE: To provide flood protection
and erosion.

DATUM: NGVD 1929

**ADOBE CREEK WATERSHED
PLANNING STUDY**
Adobe Creek Estates Mitigation Site
(downstream of Adobe Creek Lodge Road)

SCALE: as shown

APPLICATION BY:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

FLOOD AND EROSION CONTROL

IN:

AT:

COUNTY OF: Santa Clara

STATE: California

APPLICATION BY: SCVWD

Sheet M12 of 12 DATE: SEPTEMBER 1997